XM-404EQX/604EQX

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

Photo : XM-604EQX

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US, Canadian model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

40 (404EQX), 60 (604EQX) watts per channel minimum continuous average power into 4 ohms, four channels driven from 20 Hz to 20 kHz with no more than 0.04% total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

Circuit system	OTL (output transformerless) circuit Pulse power supply
Inputs	RCA pin jacks High level input connector
Outputs	Speaker terminals
Speaker impedance	2 – 8 Ω (stereo) 4 – 8 Ω (when used as a bridging amplifier)
Maximum outputs	XM-404EQX: Four speakers: 80 watts × 4 (at 4 Ω) Three speakers: 80 watts × 2 + 200 watts × 1 (at 4 Ω) Two speakers: 200 watts × 2 (at 4 Ω) XM-604EQX: Four speakers: 120 watts × 4 (at 4 Ω) Three speakers: 120 watts × 2 + 300 watts × 1 (at 4 Ω) Two speakers: 300 watts × 2 (at 4 Ω)
Rated outputs (supply voltage at 14.4 V)	XM-404EQX: Four speakers: 40 watts × 4 (20 Hz – 20 kHz, 0.04% THD, at 4 Ω) 50 watts × 4 (20 Hz – 20 kHz, 0.1% THD, at 2 Ω) Two speakers: 100 watts × 2 (20 Hz – 20 kHz, 0.1% THD, at 4 Ω) XM-604EQX: Four speakers: 60 watts × 4 (20 Hz – 20 kHz, 0.04% THD, at 4 Ω) 75 watts × 4 (20 Hz – 20 kHz, 0.1% THD, at 2 Ω) Two speakers: 150 watts × 2 (20 Hz – 20 kHz, 0.1% THD, at 4 Ω)
Frequency response	5 Hz – 100 kHz ($^{0}_{-3}$ dB)
Harmonic distortion	0.005% or less (at 1 kHz, 4 Ω)
Input level adjustment range	0.2 – 4.0 V (RCA pin jacks) 0.4 – 8.0 V (High level input)
High-pass filter	50 – 200 Hz, –12 dB/oct
Low-pass filter	50 – 200 Hz, –12 dB/oct
Equalizer	50 Hz, 200 Hz, 800 Hz, 3.2 kHz, 12.8 kHz ±12 dB
Power requirements	12 V DC car battery (negative ground)
Power supply voltage	10.5 – 16 V
Current drain	At rated output: 23 A Remote input: 1.5 mA
Dimensions	Approx. 260 × 55 × 320 mm (w/h/d) (10 1/4 × 2 1/4 × 12 5/8 in.) not incl. projecting parts and controls
Mass	XM-404EQX: Approx. 3.2 kg (7 lb. 1 oz.) not incl. accessories XM-604EQX: Approx. 3.3 kg (7 lb. 4 oz.) not incl. accessories
Supplied accessories	Mounting screws (4), Terminal cap (1)

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFIER

MICROFILM

SONY®

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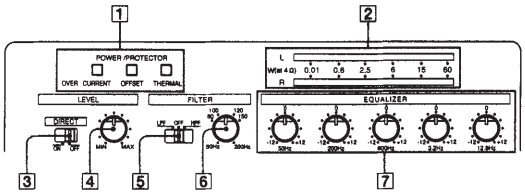
Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
GENERAL

This section is extracted from XM-604EQX's instruction manual.

Location and Function of Controls



1 POWER/PROTECTOR indicator
- OVER CURRENT lights up green during normal operation. The color will change from green to red when receiving a powerful signal.
- OFF SET lights up green during normal operation. The color will change from green to red when the voltage going out to the speaker terminal or the pin jack is too high .
- THERMAL lights up green during normal operation. The color will change from green to red when the temperature rises to an unsafe level. The color will return to green when the temperature returns to normal.

2 Power level indicator
Indicates the output levels of both the left and right sides. The scale is calibrated for use with 4 ohm speakers.

3 DIRECT switch
When the DIRECT switch is set to ON, the signal does not go through the low-pass filter, high-pass filter and equalizer circuit.

4 LEVEL adjustment control
The input level can be adjusted with this control when using source equipment made by other manufacturers. Turn it to MAX when the output level of the car audio seems low. To reduce noise, turn the LEVEL control (gain) of the amplifier to MIN and the volume of the car audio up.

5 FILTER selector switch
When the switch is in the LPF position, the filter is set to low-pass. When in the HPF position, the filter is set to high-pass. When the DIRECT switch is set to ON, these filters do not work.

6 Cut-off frequency adjustment control
Sets the cut-off frequency (50–200 Hz) for the low-pass or high-pass filters.

7 EQUALIZER level control
You can change the settings of the five band (50 Hz, 200 Hz, 800 Hz, 3.2 kHz, 12.8 kHz) equalizer.

Switch settings for each system configuration
(Change the switch positions according to the configuration.)

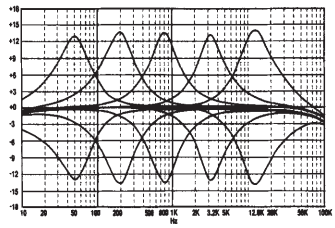
System (refer to "Connections")		DIRECT	FILTER	EQ
• 4-speaker system		ON	—	—
• 2-speaker system		OFF	OFF	*
• 3-speaker system	Full range speakers	OFF	HPF	*
• 2-way system	Subwoofers	OFF	LPF	*

** desirable level*

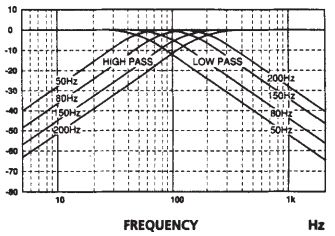
Note

If you do not use the low-pass filter, high-pass filter and equalizer circuit, set the DIRECT switch to ON for more enjoyable high quality sound.

Equalizer/Egaliseur



Cut-off frequency/Fréquence de coupure



Emplacement et fonction des commandes

1 Indicateur POWER/PROTECTOR
- OVER CURRENT s'allume en vert en cours de fonctionnement normal. La couleur passe du vert au rouge lors de la réception d'un signal puissant.
- OFFSET s'allume en vert en cours de fonctionnement normal. La couleur passe du vert au rouge lorsque la tension transmise via la borne de haut-parleur ou la prise à broche est trop élevée.
- THERMAL s'allume en vert en cours de fonctionnement normal. La couleur passe du vert au rouge lorsque la température dépasse le niveau de sécurité. La couleur revient au vert dès que la température est redevenue normale.

2 Indicateur de niveau de puissance
Indique les niveaux de sortie des côtés gauche et droit. L'échelle est étalonnée pour une utilisation avec des haut-parleurs de 4 ohms.

3 Commutateur DIRECT
Lorsque le commutateur DIRECT est réglé sur ON, le signal ne passe pas par le filtre passe-bas, le filtre passe-haut et le circuit d'égalisation.

4 Commande de réglage LEVEL
Le niveau d'entrée peut se régler avec cette commande lors de l'utilisation d'équipements source d'autres fabricants. Mettez-le sur MAX lorsque le niveau de sortie de l'installation audio paraît faible. Pour réduire les parasites, tournez la commande LEVEL (gain) de l'amplificateur sur MIN et augmentez le volume sur l'autoradio.

5 Sélecteur FILTER
Lorsque le commutateur est en position LPF, le filtre est mis sur passe-bas. Lorsqu'il est en position HPF, le filtre est mis sur passe-haut. Lorsque le commutateur DIRECT est activé, ces filtres ne fonctionnent pas.

6 Commandes de réglage de la fréquence de coupure
Règle la fréquence de coupure (50–200 Hz) des filtres passe-bas ou passe- haut.

7 Commande de niveau EQUALIZER
Vous pouvez changer les réglages de l'égaliseur à cinq bandes (50 Hz, 200 Hz, 800 Hz, 3,2 kHz, 12,8 kHz).

Réglage des commutateurs pour chaque configuration de système
(Changez les positions des commutateurs en fonction de la configuration.)

Système (Reportez-vous à "Connexion")		DIRECT	FILTER	EQ
• Système à 4 haut-parleurs		ON	—	—
• Système à 2 haut-parleurs		OFF	OFF	*
• Système à 3 haut-parleurs	Haut-parleurs à large bande	OFF	HPF	*
• Système à 2 voies	Subwoofers	OFF	LPF	*

** niveau voulu*

Remarque

Si vous n'utilisez pas le filtre passe-bas, le filtre passe-haut et le circuit de basses fréquences, réglez le commutateur DIRECT sur ON pour une haute qualité sonore plus dynamique.

Connections

Precautions

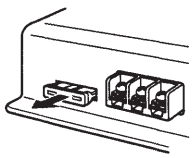
- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with an impedance of 2 to 8 ohms (4 to 8 ohms when used as a bridging amplifier).
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers.
- Avoid installing the unit in areas subject to:
  - high temperatures such as from direct sunlight or hot air from the heater
  - rain or moisture
  - dust or dirt.
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- Be sure to install the unit horizontally so that the air duct of the cooling fan or its fin will not be covered with carpet etc.
- If this unit is placed too close to the car radio or antenna, interference may occur. In this case, relocate the amplifier away from the car radio or antenna.
- If no power is being supplied to the master unit, check the connections.
- This power amplifier employs a protection circuit* to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

Warning

When replacing the fuse, be sure to use one matching the amperage stated above the fuse holder. Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.



Protection circuit
This amplifier is provided with a protection circuit that activates in the following cases:
— when the unit is overheated
— when a DC current is generated
— when the speaker terminals are short circuited.
The color of the POWER/PROTECTOR indicator will change from green to red, and the unit will shut down.
If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before use.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Connexions

Précautions

- Cet appareil est conçu pour fonctionner uniquement sur courant continu de 12 volts avec masse négative.
- Utilisez des haut-parleurs d'une impédance de 2 à 8 ohms (4 à 8 ohms lors de l'utilisation comme amplificateur en pont).
- Ne raccordez pas de haut-parleurs actifs (avec amplificateur intégré) aux bornes de haut-parleurs de cet appareil; ils pourraient être endommagés.
- N'installez pas l'unité dans des endroits soumis à:
  - de hautes températures comme sous le rayonnement direct du soleil ou à proximité d'un conduit de chauffage;
  - la pluie ou à l'humidité;
  - la poussière ou aux saletés.
- Si votre voiture était garée en plein soleil et que la température a considérablement augmenté à l'intérieur, laissez refroidir l'appareil avant de l'utiliser.
- Installez l'appareil horizontalement de façon à ce que le conduit d'air du ventilateur de refroidissement ou ses pales ne soit pas recouvert du tapis, etc.
- Si cet appareil est placé trop près de l'autoradio et de l'antenne, il se peut que des interférences se produisent. Dans ce cas, éloignez l'amplificateur de l'autoradio ou de l'antenne.
- Si l'appareil principal n'est pas alimenté, vérifiez les connexions.
- Cet amplificateur est équipé d'un circuit* destiné à protéger les transistors et les haut-parleurs en cas de défaillance. N'essayez pas de tester l'efficacité de ce circuit en recouvrant les dissipateurs thermiques ou en effectuant des connexions inadéquates.
- N'utilisez pas l'appareil sur une batterie faible, car sa performance maximale dépend d'une bonne alimentation en électricité.
- Pour des raisons de sécurité, écoutez l'autoradio à un volume modéré afin d'entendre les bruits extérieurs.

Remplacement du fusible

Si le fusible saute, vérifiez les connexions du fil d'alimentation et remplacez le fusible. S'il saute de nouveau, un mauvais circuit interne peut en être la cause. Dans ce cas, consultez votre concessionnaire Sony.

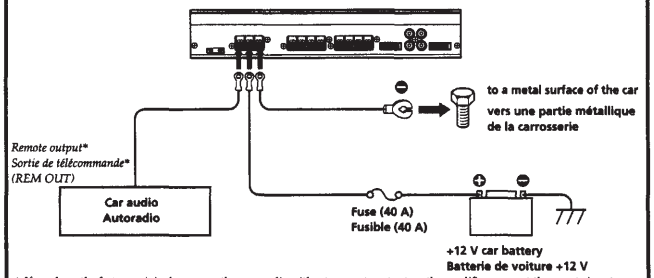
Avertissement

En cas de remplacement du fusible, veillez à utiliser un fusible dont l'intensité correspond à celle inscrite sur le porte-fusible. N'utilisez jamais de fusible dont l'intensité dépasse celle du fusible fourni avec l'appareil, car vous risqueriez d'endommager l'appareil.

Circuit de protection
Cet amplificateur est équipé d'un circuit de protection qui entre en service dans les cas suivants:
— Surchauffe de l'appareil
— Production d'un courant continu
— Court-circuit aux bornes des haut-parleurs.
La couleur du témoin POWER/PROTECTOR passe du vert au rouge et l'appareil s'éteint.
Si le cas se présente, coupez l'alimentation de l'appareil raccordé et éjectez la cassette ou le disque compact avant d'examiner la cause de la défaillance. Si l'amplificateur est trop chaud, attendez qu'il refroidisse.

Pour toute question ou problème qui ne serait pas traité dans ce manuel, consultez votre concessionnaire Sony.

Power Connection Leads
Câbles d'alimentation



** If you have the factory original or some other car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
** Si vous disposez du modèle d'origine ou d'un autre autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de télécommande (REMOTE) à la prise d'alimentation accessoires.*

Notes on the power supply
- *Connect the +12 V power supply lead only after all the other leads have been connected.*
- ***Be sure to connect the ground lead of the unit securely to a metal surface of the car. A loose connection may cause a malfunction of the amplifier.***
- *Be sure to connect the remote control lead of the car audio to the remote terminal.*
- *When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
- *Use the power supply lead with a fuse attached (40 A).*
- *Place the fuse in the power supply lead as close as possible to the car battery.*
- *Make sure that the leads to be connected to the **+12 V** and **GND** terminals of this unit are larger than 10-Gauge (AWG-10) or have a sectional area of more than 5 mm².*
- *When using the optional RC-46 power amplifier connecting cord, consult that manual for proper use.*

Remarques sur l'alimentation électrique
- *Raccordez le câble d'alimentation +12 V uniquement après avoir réalisé toutes les autres connexions.*
- ***Raccordez correctement le fil de masse à une partie métallique de la voiture. Une connexion lâche peut provoquer un dysfonctionnement de l'amplificateur.***
- *Veillez à raccorder le fil de télécommande de l'autoradio à la borne de télécommande.*
- *Si vous utilisez un autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de la télécommande (REMOTE) à la prise d'alimentation accessoires.*
- *Utilisez un câble d'alimentation muni d'un fusible (40 A).*
- *Fixez le câble d'alimentation le plus près possible de la batterie de voiture.*
- *Vous devez raccorder des câbles de calibre supérieurs à 10 (AWG-10) ou d'une section supérieure à 5 mm² aux bornes **+12V** et **GND**.*
- *Lorsque vous utilisez le cordon de raccordement pour amplificateur RC-46 en option, consultez le manuel pour une utilisation correcte.*

Make the terminal connections as illustrated below.

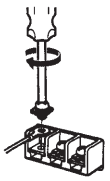
Note
Tighten the screws firmly, but be careful not to apply too much force as doing so may damage the screws.*

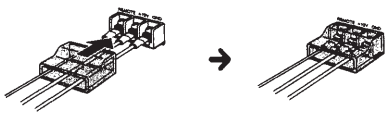
** The torque value should be less than 1 N•m.*

Effectuez les connexions de la manière indiquée ci-dessous.

Remarque
Ne serrez pas trop fort la vis car vous pourriez l'endommager.*

** Le couple de serrage devrait être inférieur à 1 N•m.*





Pass the leads through the cap, connect the leads, then cover the terminals with the cap.

Faites passer les fils par le cache, raccordez les fils et recouvrez les bornes avec le cache.

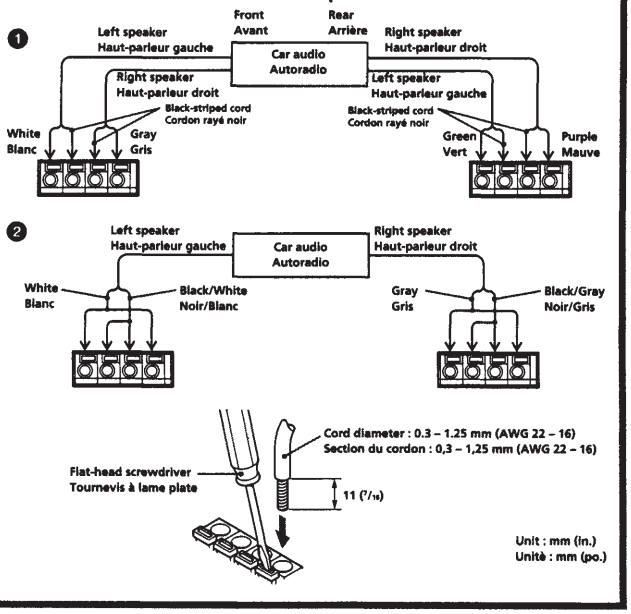
Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the ⊖ terminal of the speaker system to the car chassis, and do not connect the ⊖ terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply lead as running them close together can generate some interference noise.
- This unit is a high-power amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or some other purpose, do not remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply lead until all the other leads have been connected.

Attention

- Avant d'effectuer les connexions, débranchez le fil de masse de la borne de la batterie pour éviter un court-circuit.
- Utilisez des haut-parleurs d'une capacité adéquate. Si vous utilisez des haut-parleurs de faible capacité, ils risquent d'être endommagés.
- Ne raccordez pas la borne ⊖ des haut-parleurs à la carrosserie de la voiture ni la borne ⊖ du haut-parleur droit à celle du haut-parleur gauche.
- Eloignez les cordons d'entrée et de sortie du fil d'alimentation électrique pour éviter que des interférences ne se produisent.
- Cet appareil est un amplificateur de haute puissance et il peut ne pas atteindre sa puissance maximale si les cordons de haut-parleurs originaux de la voiture lui sont raccordés.
- Si votre voiture est équipée d'un ordinateur de bord pour la navigation ou à toute autre fin, ne débranchez pas le fil de masse de la batterie de la voiture. Si vous débranchez ce fil, toute la mémoire de l'ordinateur sera effacée. Pour éviter un court-circuit lorsque vous effectuez les branchements, branchez le fil d'alimentation de +12 volts uniquement après avoir branché tous les autres fils.

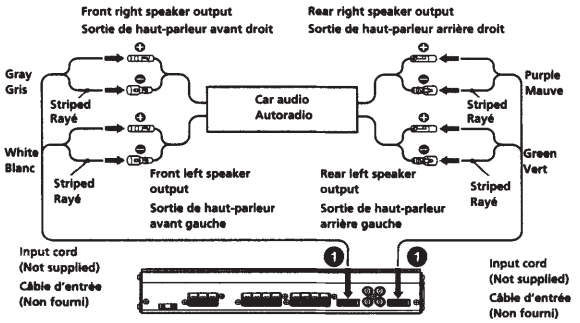
Direct speaker cord connection
Raccordement direct du cordon de haut-parleur



Input Connections/Connexions d'entrée

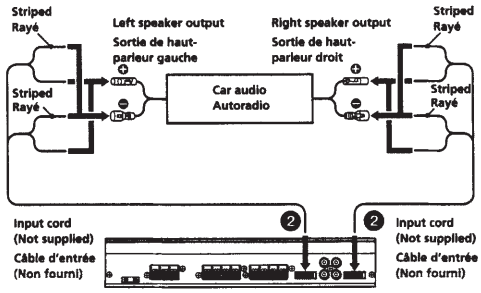
High Level Input Connection (with Speaker Connection 1, 2 or 4)
Connexion à l'entrée de haut niveau (avec connexion de haut-parleur 1, 2 ou 4)

A



High Level Input Connection (with Speaker Connection 3)
Connexion à l'entrée de haut niveau (avec connexion de haut-parleur 3)

B

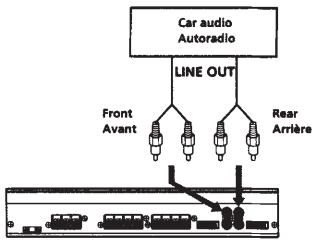


Note
Make sure that the right speaker output from the car audio is connected to the connector marked "REAR" on the unit, and the left to "FRONT".

Remarque
Veillez à raccorder la sortie de haut-parleur droit de l'autoradio au connecteur "REAR" de l'unité, et la gauche au connecteur "FRONT".

Line Input Connection (with Speaker Connection 1, 2 or 4)
Connexion d'entrée de ligne (avec connexion de haut-parleur 1, 2 ou 4)

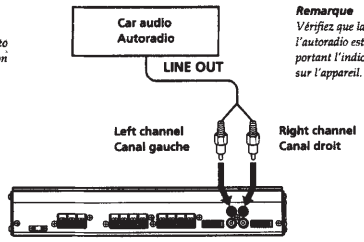
C



Line Input Connection (with Speaker Connection 3)
Connexion d'entrée de ligne (avec connexion de haut-parleur 3)

D

Note
Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.



Remarque
Vérifiez que la sortie de ligne de l'autoradio est raccordée à la prise portant l'indication "L (MONO)" sur l'appareil.

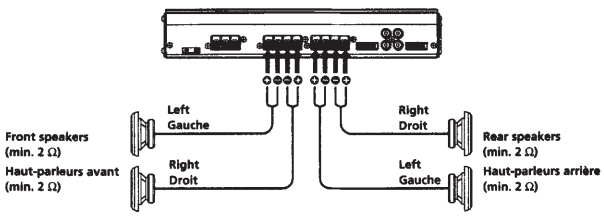
Speaker Connections/Raccordement de haut-parleurs

4-Speaker System (with Input Connection A or C)
Système à 4 haut-parleurs (avec connexion d'entrée A ou C)

1

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

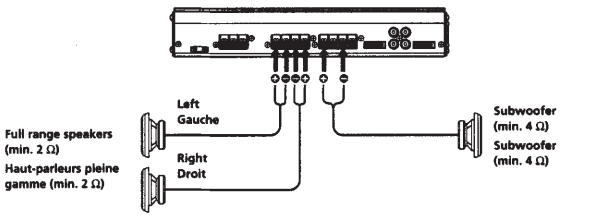


3-Speaker System (with Input Connection A or C)
Système à 3 haut-parleurs (avec connexion d'entrée A ou C)

2

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".



Notes
- *In this system, the volume of the subwoofer will be controlled by the car audio fader control.*
- *In this system, the output signals to the subwoofer are a combination of both the REAR L and R INPUT jacks or the REAR high level input connector signals.*

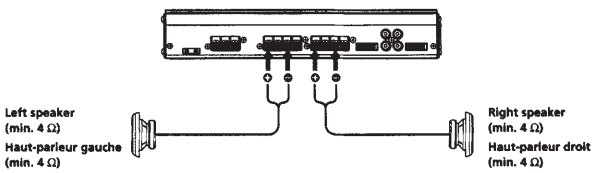
Remarques
- *Dans ce système, le volume du subwoofer est contrôlé par le fader de l'autoradio.*
- *Sur cet appareil, les signaux transmis vers le subwoofer sont constitués des signaux des prises REAR L et R INPUT ou du connecteur d'entrée de haut niveau REAR.*

2-Speaker System (with Input Connection B or D)
Système à 2 haut-parleurs (avec connexion d'entrée B ou D)

3

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

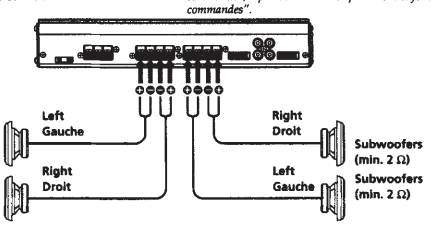


2-Way System (with Input Connection A or C)
Système à 2 voies (avec connexion d'entrée A ou C)

4

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".



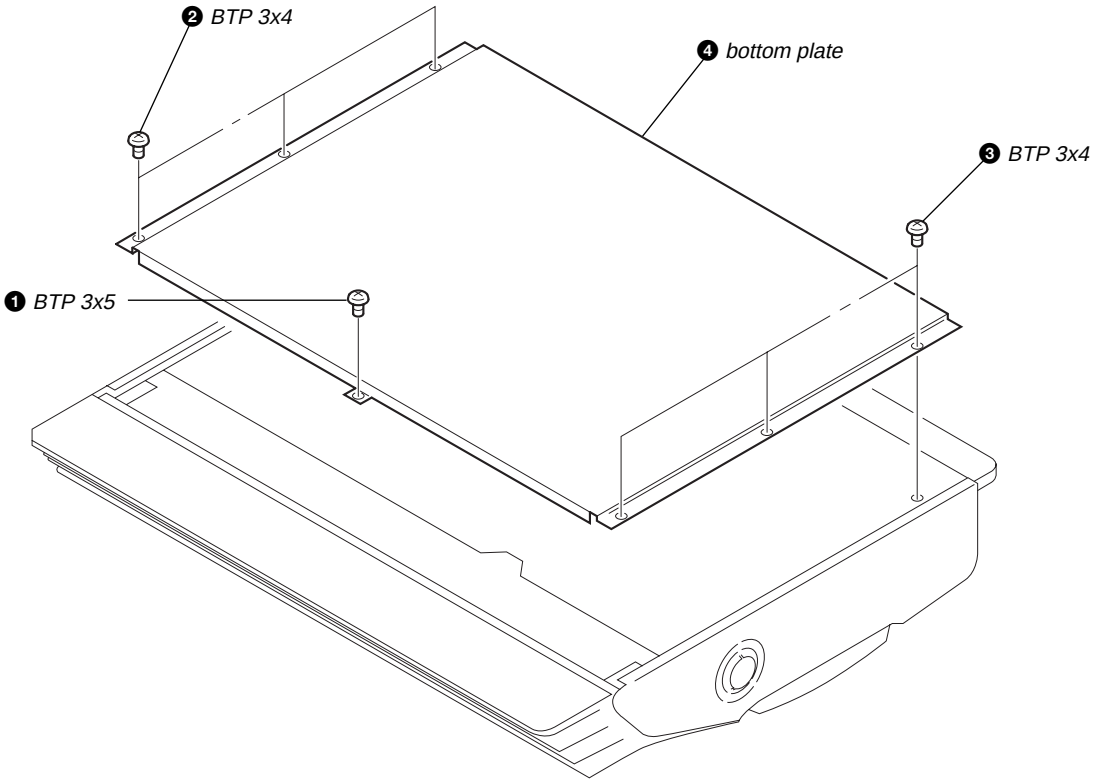
Note
In this system, the volume of the subwoofers will be controlled by the car audio fader control.

Remarque
Dans ce système, le volume des subwoofers est contrôlé par le fader de l'autoradio.

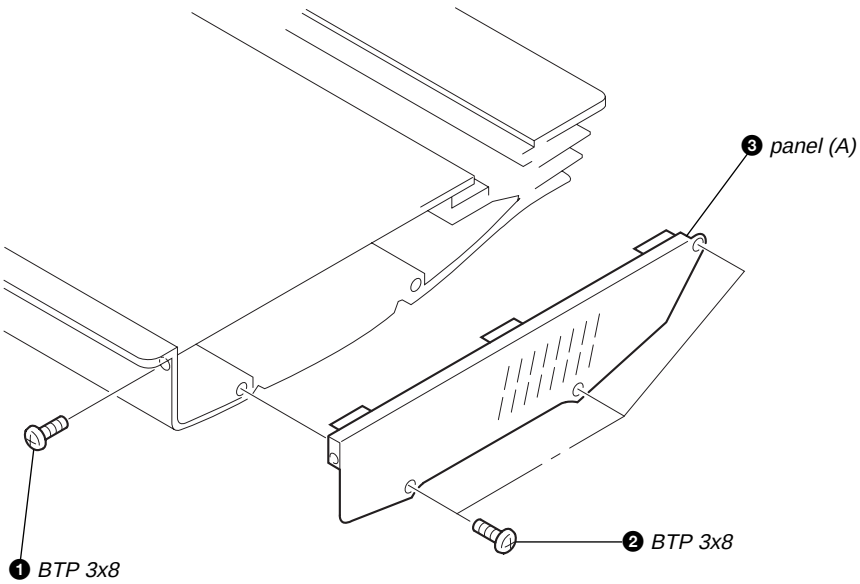
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

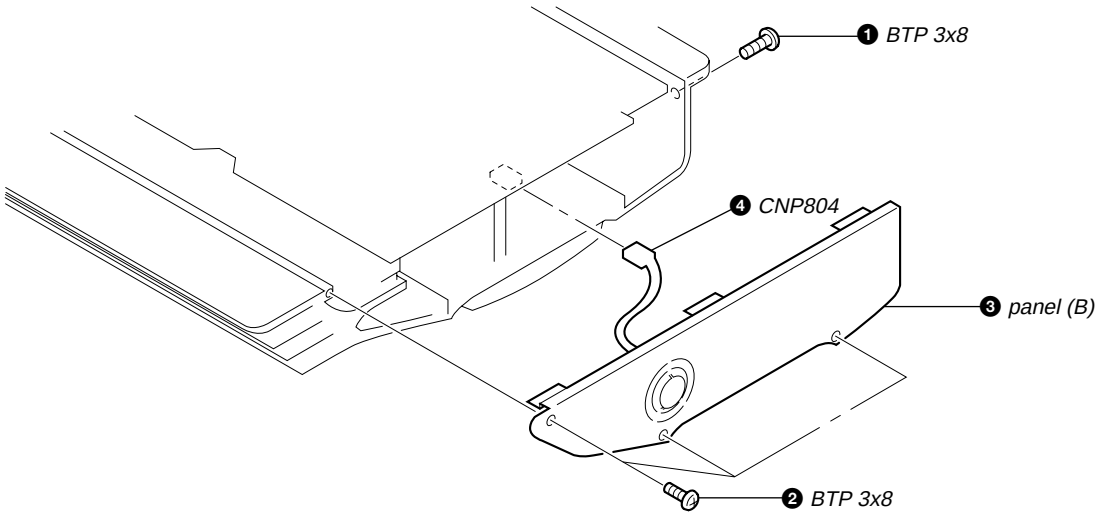
2-1. BOTTOM PLATE



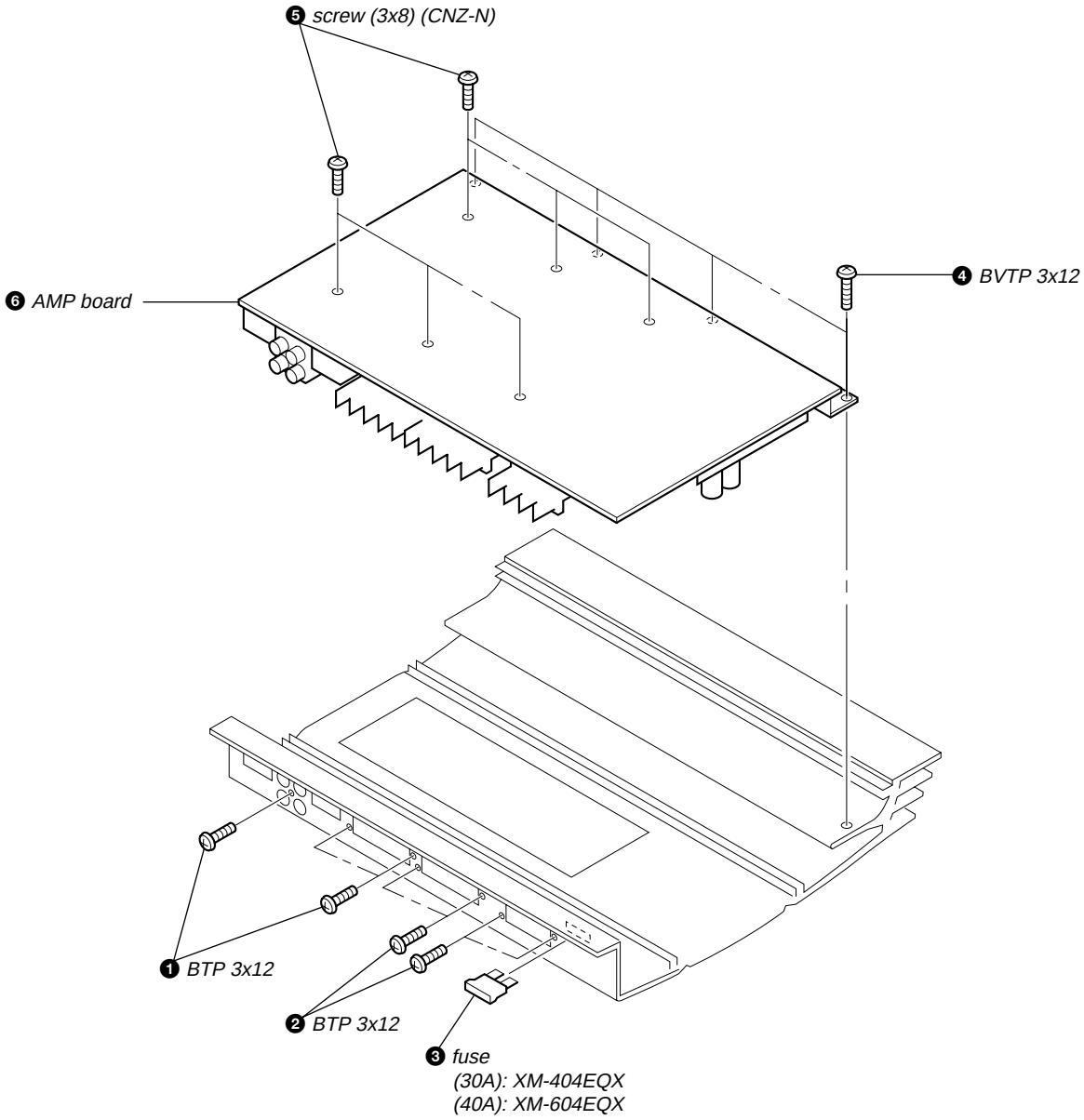
2-2. PANEL (A)



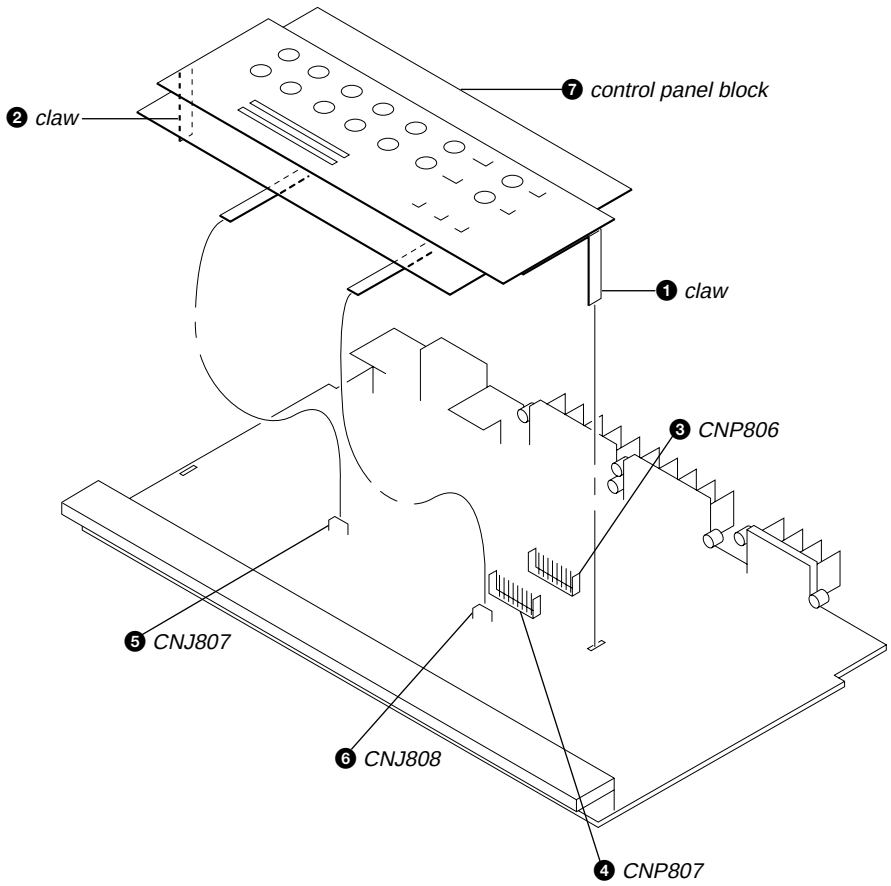
2-3. PANEL (B)



2-4. AMP BOARD

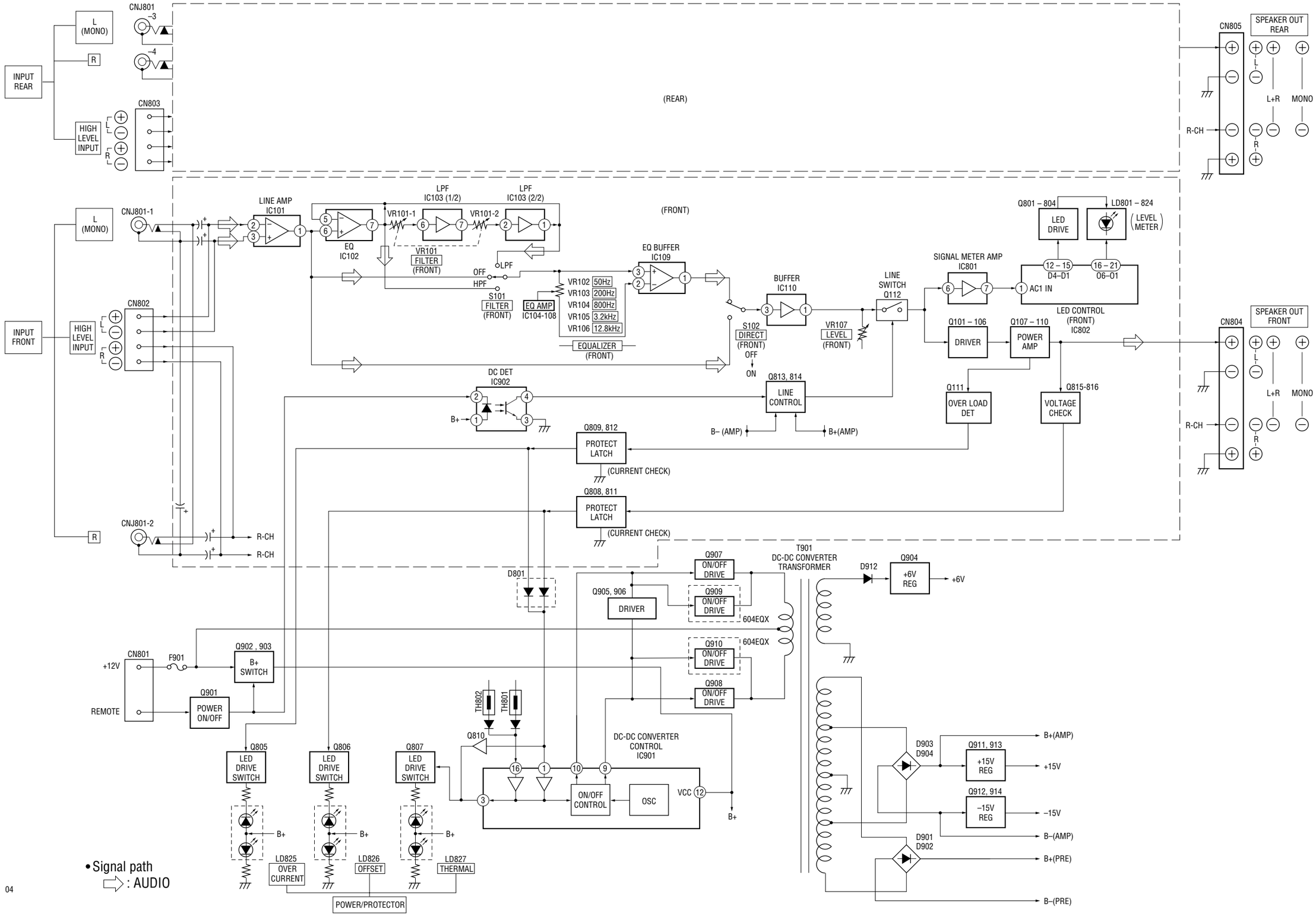


2-5. CONTROL PANEL BLOCK



SECTION 3
DIAGRAMS

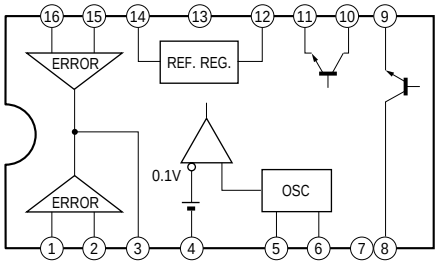
3-1. BLOCK DIAGRAM



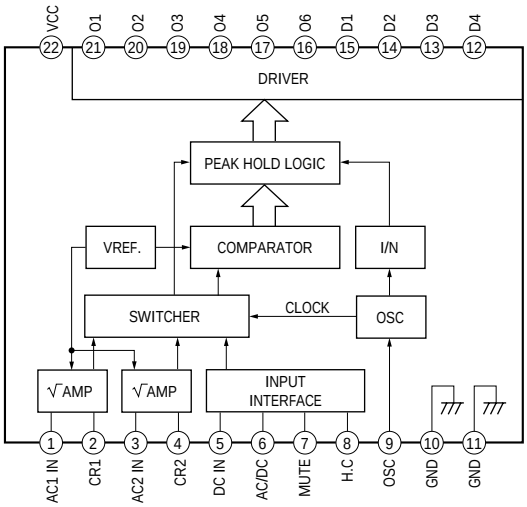
04

• **IC Block Diagrams**

IC901 µPC494GS



IC802 BA6820F



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS. (In addition to this, the necessary note is printed in each block.)

for schematic diagrams

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- 2 : nonflammable resistor.
- C : panel designation.
- U : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from +12V and REMOTE terminals.
- Voltage is dc with respect to ground under no-signal condition.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  F : AUDIO

for printed wiring boards

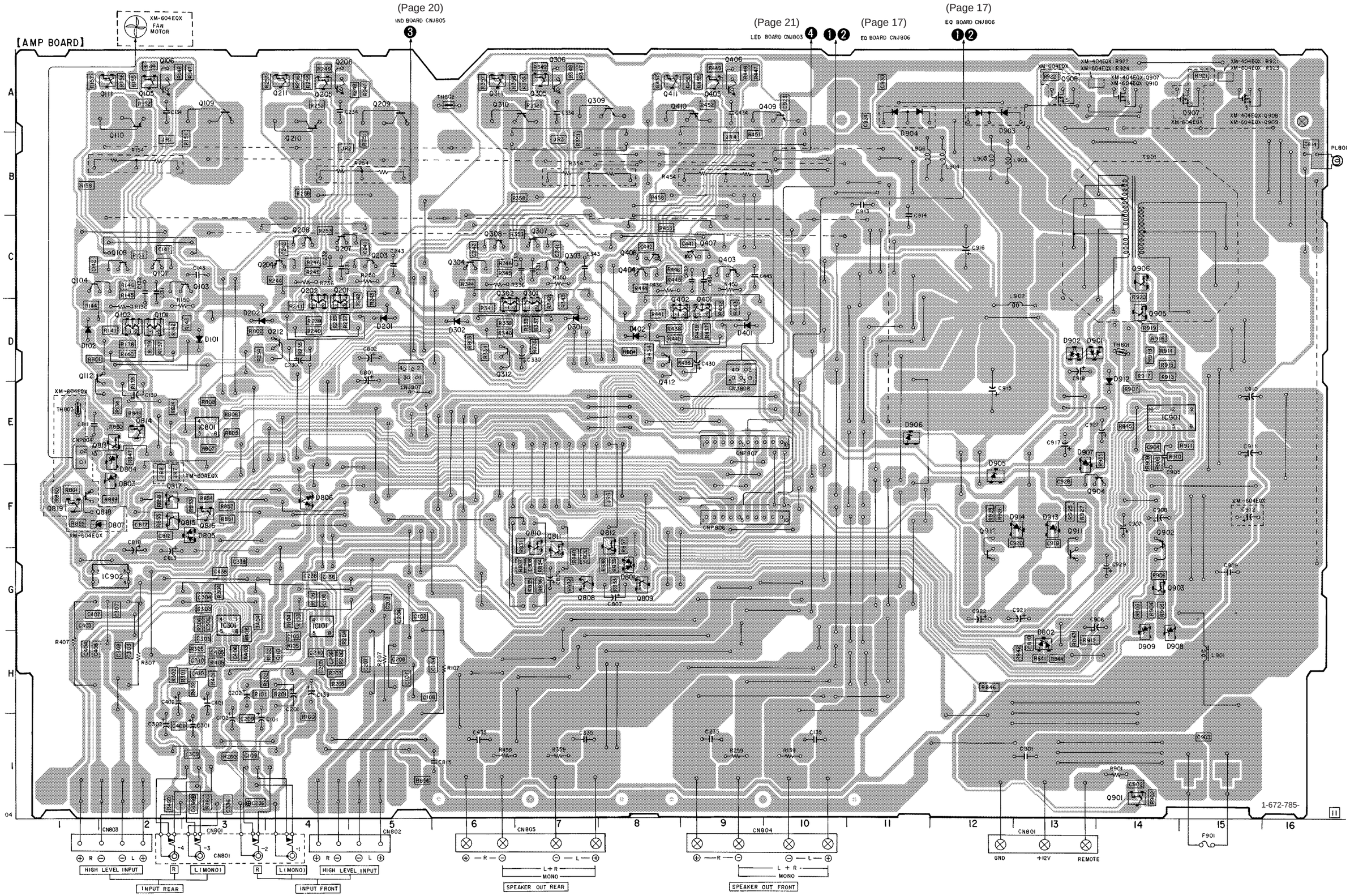
- X : parts extracted from the component side.
- ● : Through hole.
- b : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

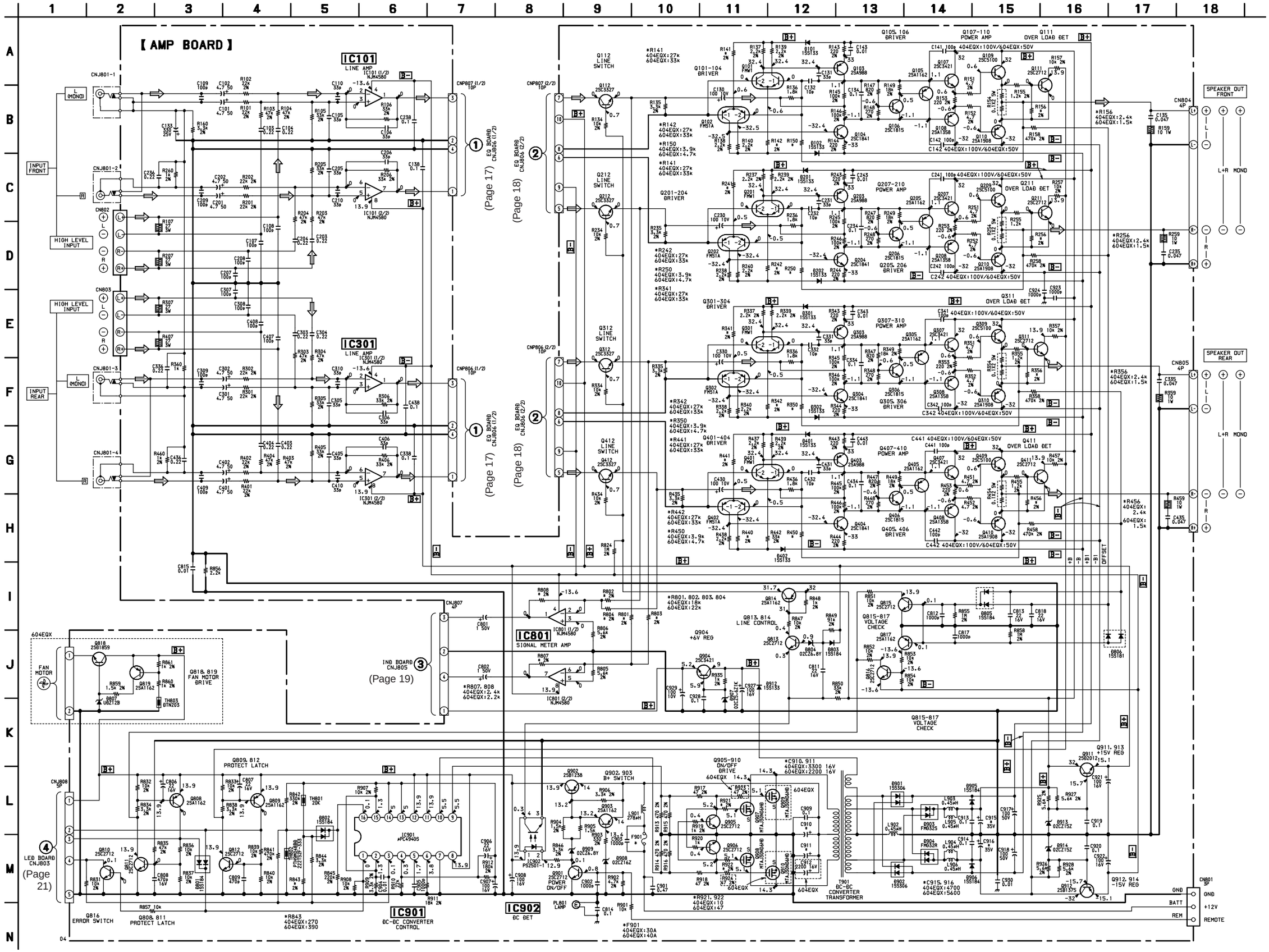
• Semiconductor Location (AMP Board)

Ref. No.	Location	Ref. No.	Location
D101	D-3		
D102	D-1	IC101	G-4
		IC301	G-3
D201	D-5	IC801	E-3
		IC901	E-14
D202	D-3	IC902	G-2
D301	D-7	Q101	D-2
		Q102	D-2
D302	D-6	Q103	C-3
		Q104	C-1
D401	D-9	Q105	A-2
		Q106	A-2
D402	D-8	Q107	C-2
		Q108	C-2
D801	G-8	Q109	A-3
		Q110	B-2
D802	H-13	Q111	A-2
		Q112	D-2
D803	F-2	Q201	C-4
		Q202	C-4
D804	F-2	Q203	C-5
		Q204	C-4
D805	F-3	Q205	A-4
		Q206	A-4
D806	F-4	Q207	C-4
		Q208	C-4
D807	F-2	Q209	A-5
		Q210	B-4
D901	D-13	Q211	A-4
		Q212	D-4
D902	D-13	Q301	D-7
		Q302	D-6
D903	B-12	Q303	C-7
		Q304	C-6
D904	B-11	Q305	A-7
		Q306	A-7
D905	F-12	Q307	C-7
		Q308	C-6
D906	E-11	Q309	A-7
		Q310	A-6
D907	F-13	Q311	A-6
		Q312	D-6
D908	H-14	Q401	D-9
		Q402	D-8
D909	H-14	Q403	C-9
		Q404	C-8
D912	E-14	Q405	A-9
		Q406	A-9
D913	G-13	Q407	C-9
		Q408	C-8
D914	G-12	Q409	A-9
		Q410	A-9
		Q411	A-8
		Q412	E-8
		Q808	G-7
		Q809	G-8
		Q810	F-7
		Q811	F-7
		Q812	F-8
		Q813	E-2
		Q814	E-2
		Q815	F-3
		Q816	F-3
		Q817	F-2
		Q818	F-2
		Q819	F-1
		Q901	I-14
		Q902	G-14
		Q903	G-14
		Q904	H-13
		Q905	D-14
		Q906	D-14
		Q907	A-15
		Q908	A-13
		Q909	A-16
		Q910	A-14
		Q911	G-13

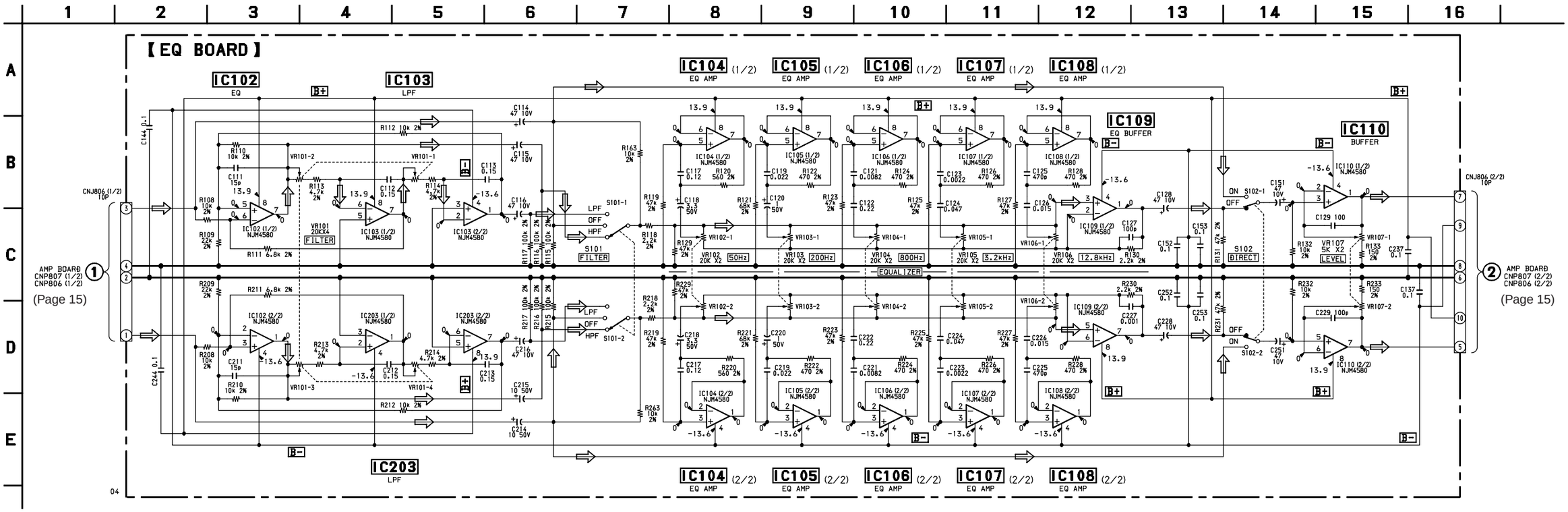
3-2. PRINTED WIRING BOARD — AMP SECTION — • Refer to page 12 for Semiconductor Location.



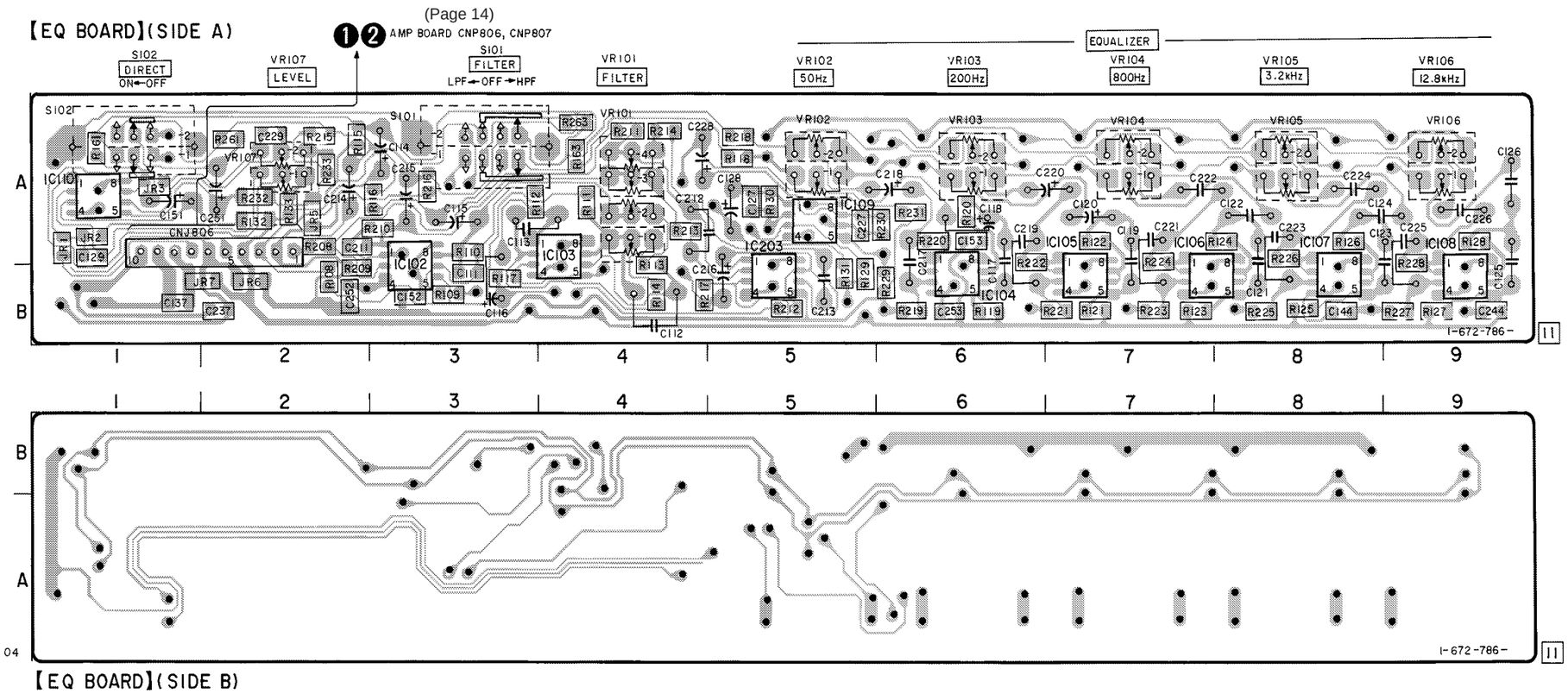
3-3. SCHEMATIC DIAGRAM — AMP SECTION — • Refer to page 11 for IC Block Diagrams.


【 AMP BOARD 】
IC101
LINE AMP
IC101 (1/2) NJM4580
IC301
LINE AMP
IC301 (1/2) NJM4580
IC801
SIGNAL METER AMP
IC801 (1/2) NJM4580
IC901
DC-DC CONVERTER CONTROL
IC902
DC DET
IC301 μPC49405
IC801 (2/2) NJM4580
IC101 (2/2) NJM4580
IC301 (2/2) NJM4580
CNJ801-1
CNJ801-2
CNJ801-3
CNJ801-4
CN802
CN803
CN804 4P
CN805 4P
CNJ807 4P
CNJ808 5P
CN801 5P
CNP807 (1/2) 10P
CNP807 (2/2) 10P
CNP806 (1/2) 10P
CNP806 (2/2) 10P
EQ BOARD CNJ806 (1/2)
EQ BOARD CNJ806 (2/2)
INPUT FRONT
INPUT REAR
HIGH LEVEL INPUT
HIGH LEVEL INPUT
L (MONO)
L (MONO)
R
R
SPEAKER OUT FRONT
SPEAKER OUT REAR
L+R MONO
L+R MONO
(Page 17)
(Page 18)
(Page 19)
(Page 21)
IND BOARD CNJ805
LED BOARD CNJ803
604EQX
FAN MOTOR
Q818, 819 FAN MOTOR DRIVE
Q816 ERROR SWITCH
Q808, 811 PROTECT LATCH
Q809, 812 PROTECT LATCH
Q810 2SC2712
Q811 2SC2712
Q812 2SC2712
Q808 2SA1162
Q809 2SA1162
Q818 2SB1659
Q819 2SA1162
Q902 2SB1238
Q902, 903 B+ SWITCH
Q901 2SC2712 POWER ON/OFF
Q904 +6V REG
Q904 2SC5421
Q905-910 ON/OFF DRIVE
Q911, 913 +15V REG
Q911 2SB2021
Q912, 914 -15V REG
Q912 2SB1375
Q813, 814 LINE CONTROL
Q813 2SC2712
Q814 2SA1162
Q815-817 VOLTAGE CHECK
Q815 2SC2712
Q817 2SA1162
Q815-817 VOLTAGE CHECK
Q816 2SC2712
Q112 LINE SWITCH
Q212 LINE SWITCH
Q312 LINE SWITCH
Q412 LINE SWITCH
Q112 2SC3327
Q212 2SC3327
Q312 2SC3327
Q412 2SC3327
Q101-104 DRIVER
Q201-204 DRIVER
Q301-304 DRIVER
Q401-404 DRIVER
Q105, 106 DRIVER
Q205, 206 DRIVER
Q305, 306 DRIVER
Q405, 406 DRIVER
Q107-110 POWER AMP
Q207-210 POWER AMP
Q307-310 POWER AMP
Q407-410 POWER AMP
Q111 OVER LOAD DET
Q211 OVER LOAD DET
Q311 OVER LOAD DET
Q411 OVER LOAD DET
Q102 FMS1A
Q202 FMS1A
Q302 FMS1A
Q402 FMS1A
Q101 FMW1
Q201 FMW1
Q301 FMW1
Q401 FMW1
Q103 2SA988
Q203 2SA988
Q303 2SA988
Q403 2SA988
Q104 2SC1841
Q204 2SC1841
Q304 2SC1841
Q404 2SC1841
Q106 2SC1815
Q206 2SC1815
Q306 2SC1815
Q406 2SC1815
Q105 2SA1162
Q205 2SA1162
Q305 2SA1162
Q405 2SA1162
Q107 2SC3421
Q207 2SC3421
Q307 2SC3421
Q407 2SC3421
Q109 2SC5100
Q209 2SC5100
Q309 2SC5100
Q409 2SC5100
Q108 2SA1358
Q208 2SA1358
Q308 2SA1358
Q408 2SA1358
Q110 2SA1908
Q210 2SA1908
Q310 2SA1908
Q410 2SA1908
Q901 2SC2712 POWER ON/OFF
Q902 2SB1238
Q904 2SC5421
Q905 2SC2712
Q906 2SC2712
Q907 2SC2712
Q909 2SC2712
Q910 2SC2712
Q911 2SB2021
Q912 2SB1375
Q813 2SC2712
Q815 2SC2712
Q817 2SA1162
Q816 2SC2712
Q810 2SC2712
Q811 2SC2712
Q812 2SC2712
Q808 2SA1162
Q809 2SA1162
Q818 2SB1659
Q819 2SA1162
Q112 2SC3327
Q212 2SC3327
Q312 2SC3327
Q412 2SC3327
D807 UDZ12B
TH803 BTN203
D801 1SS184
D802 1SS184
D803 1SS184
D804 DZ2Z8.6BY
D805 1SS184
D806 1SS181
D807 1SS133
D808 DZ2Z6.8Y
D809 DZ2Z6.8Y
D810 MTA4306AHB
D811 MTA4306AHB
D812 1SS133
D813 MTA4306AHB
D814 MTA4306AHB
D815 MTA4306AHB
D816 MTA4306AHB
D817 MTA4306AHB
D818 MTA4306AHB
D819 MTA4306AHB
D820 MTA4306AHB
D821 MTA4306AHB
D822 MTA4306AHB
D823 MTA4306AHB
D824 MTA4306AHB
D825 MTA4306AHB
D826 MTA4306AHB
D827 MTA4306AHB
D828 MTA4306AHB
D829 MTA4306AHB
D830 MTA4306AHB
D831 MTA4306AHB
D832 MTA4306AHB

3-4. SCHEMATIC DIAGRAM — EQ SECTION —



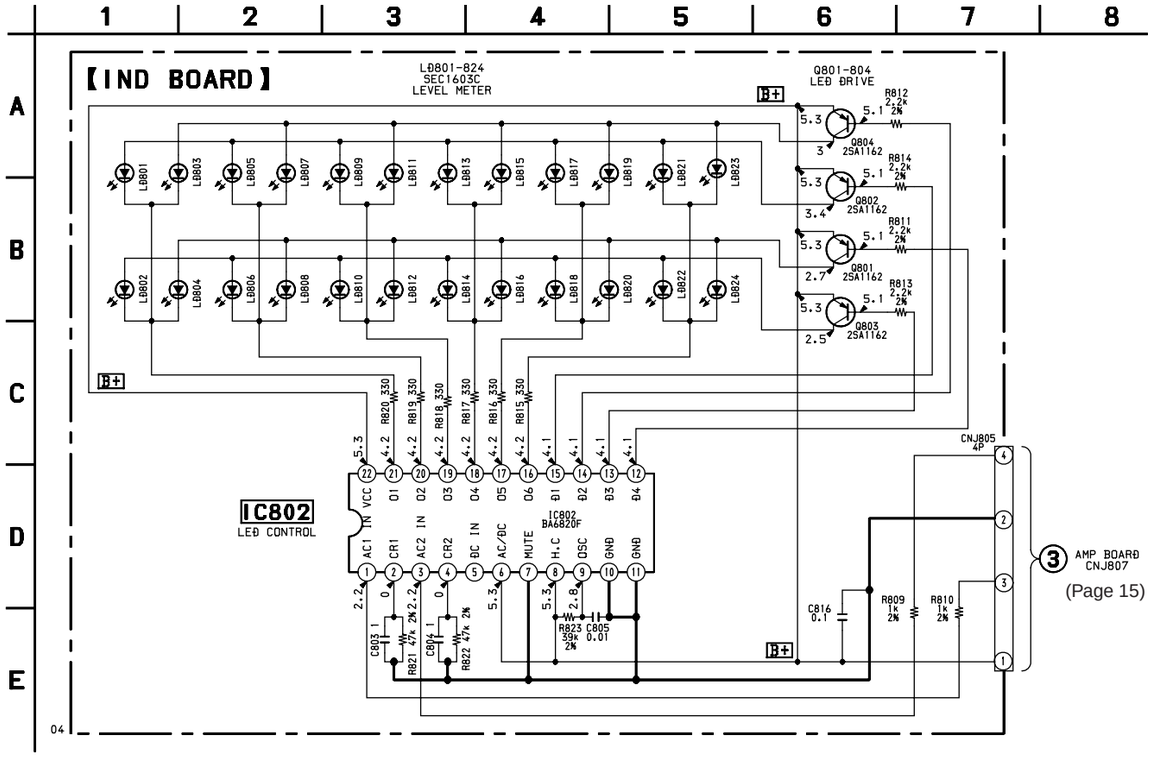
3-5. PRINTED WIRING BOARD — EQ SECTION —



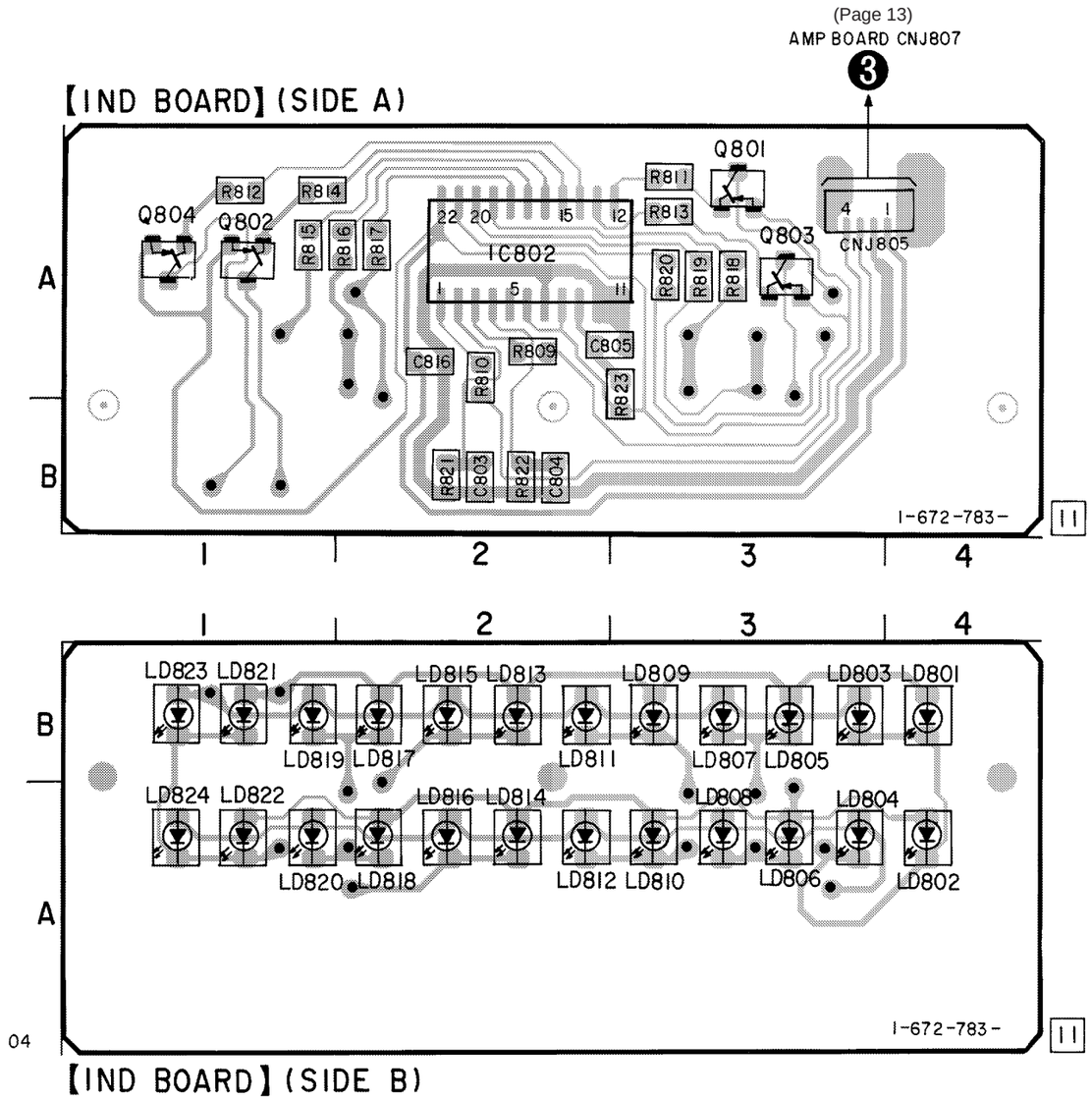
- **Semiconductor Location**

Ref. No.	Location
IC102	A-3
IC103	A-4
IC104	B-6
IC105	A-7
IC106	A-7
IC107	A-8
IC108	A-9
IC109	A-5
IC110	A-1
IC203	A-5

3-6. SCHEMATIC DIAGRAM — IND SECTION — • Refer to page 11 for IC Block Diagrams.



3-7. PRINTED WIRING BOARD — IND SECTION —

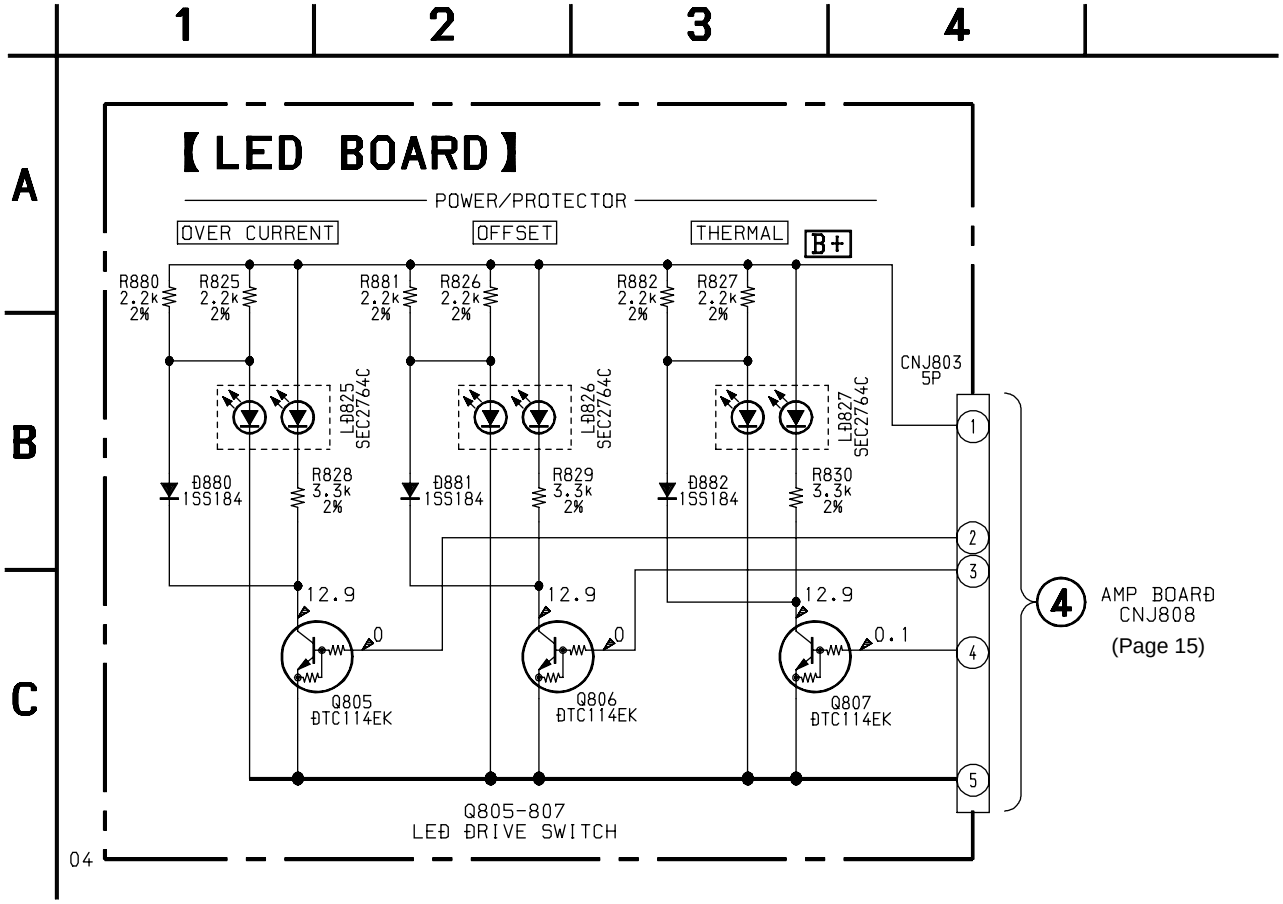


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
IC802	A-2	(LD815)	B-2
		(LD816)	A-2
(LD801)	B-4	(LD817)	B-2
(LD802)	A-4	(LD818)	A-2
(LD803)	B-3	(LD819)	B-1
(LD804)	A-3	(LD820)	A-1
(LD805)	B-3	(LD821)	B-1
(LD806)	A-3	(LD822)	A-1
(LD807)	B-3	(LD823)	B-1
(LD808)	A-3	(LD824)	A-1
(LD809)	B-3		
(LD810)	A-3	Q801	A-3
(LD811)	B-2	Q802	A-1
(LD812)	A-2	Q803	A-3
(LD813)	B-2	Q804	A-1
(LD814)	A-2		

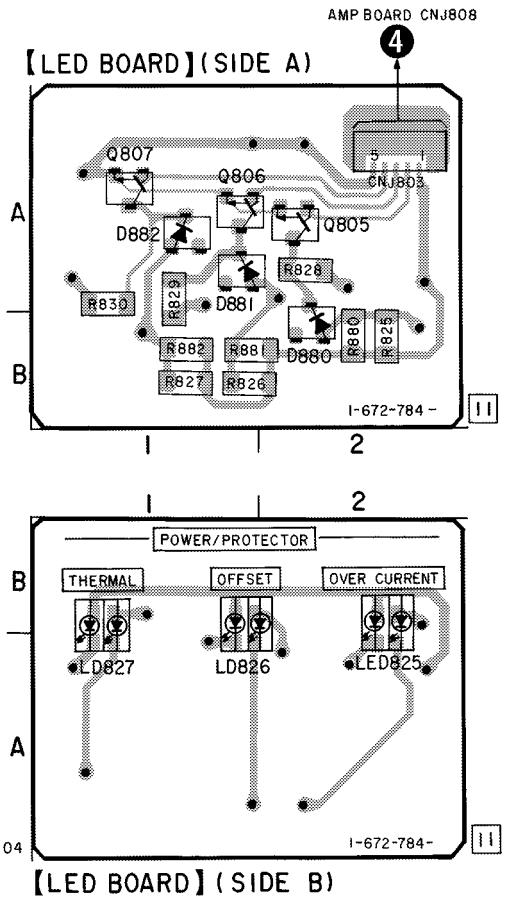
( ) : SIDE B

3-8. SCHEMATIC DIAGRAM — LED SECTION —



3-9. PRINTED WIRING BOARD — LED SECTION —

(Page 14)



- **Semiconductor Location**

Ref. No.	Location
D880	B-2
D881	A-1
D882	A-1
(LD825)	A-2
(LD826)	A-1
(LD827)	A-1
Q805	A-2
Q806	A-1
Q807	A-1

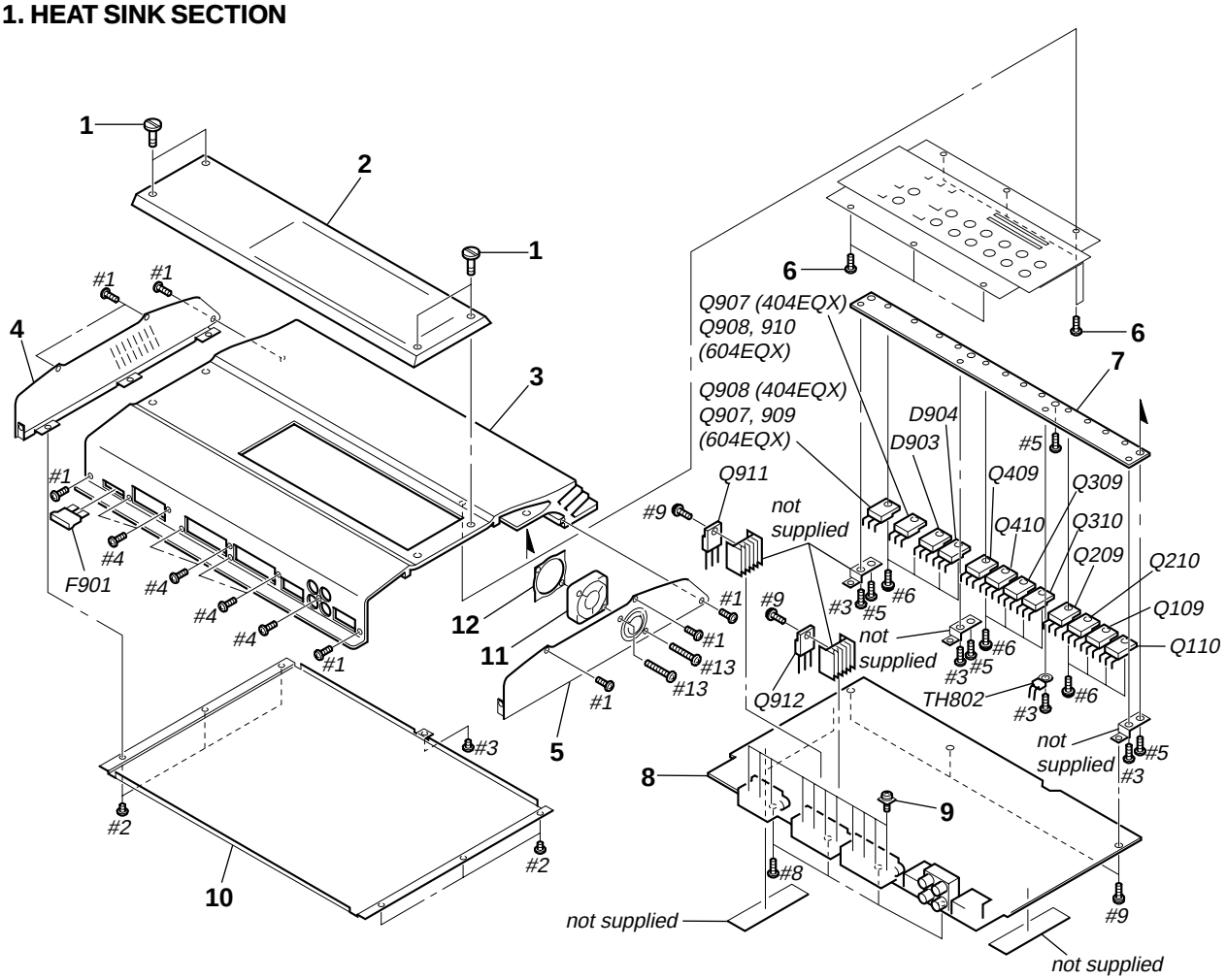
( ) : SIDE B

SECTION 4
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

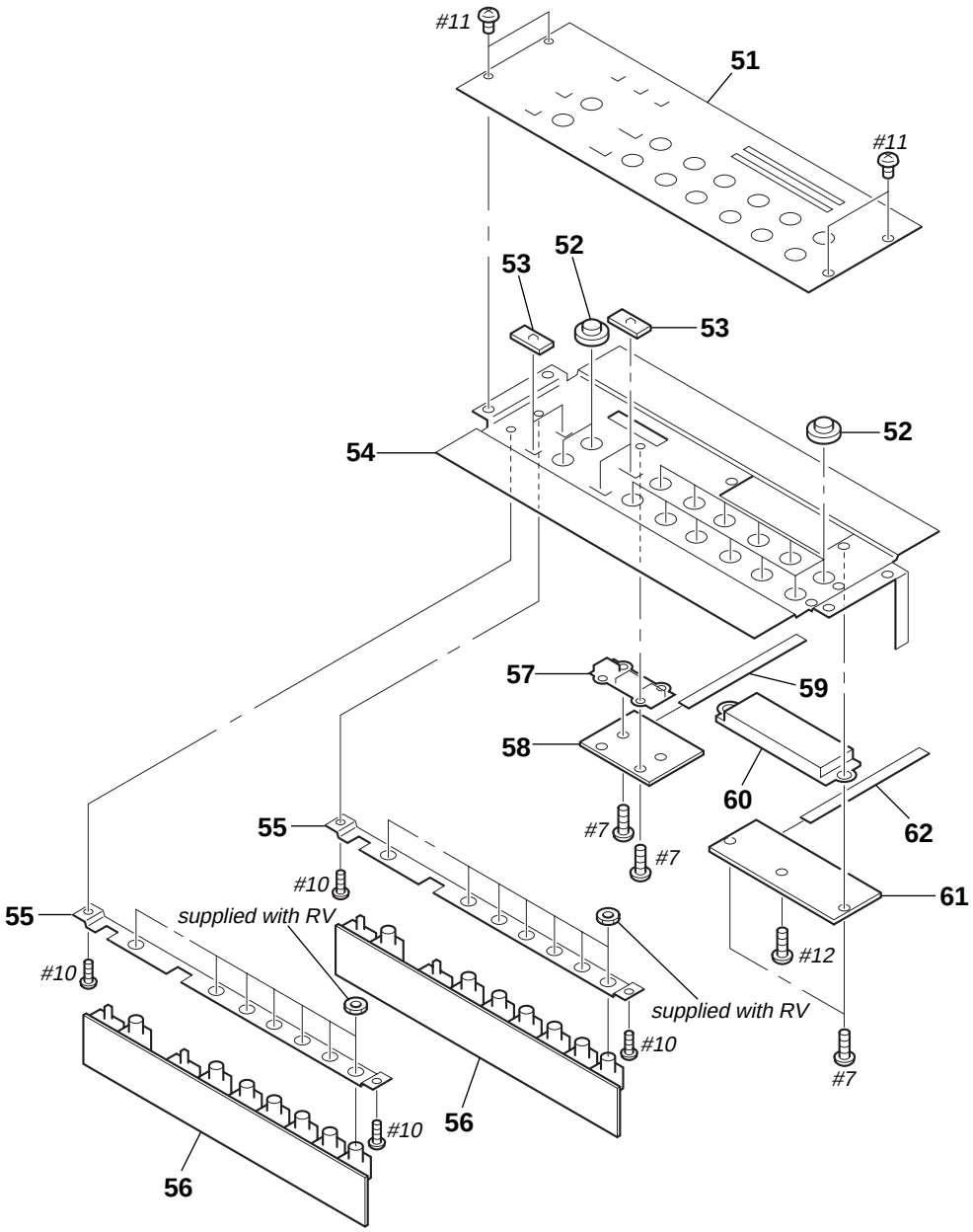
4-1. HEAT SINK SECTION



Ref. No.	Part No.	Description	Remark
1	3-013-266-01	SCREW, ORNAMENTAL	
2	3-033-970-01	PLATE, ORNAMENTAL (404EQX)	
2	3-033-970-11	PLATE, ORNAMENTAL (604EQX)	
* 3	3-032-786-01	HEAT SINK (404EQX)	
* 3	3-032-786-11	HEAT SINK (604EQX)	
4	3-035-756-01	PANEL (A) (404EQX)	
4	3-035-756-11	PANEL (A) (604EQX)	
5	3-035-757-01	PANEL (B) (404EQX)	
5	3-035-757-11	PANEL (B) (604EQX)	
6	3-933-766-01	SCREW (3X8) (CZN-N)	
* 7	3-035-902-01	HEAT SINK, SUB	
* 8	A-3317-649-A	AMP BOARD, COMPLETE (404EQX)	
* 8	A-3317-650-A	AMP BOARD, COMPLETE (604EQX)	
9	3-912-432-01	SCREW M4X8	
* 10	3-035-901-01	PLATE, BOTTOM	
11	1-763-107-11	MOTOR, FAN (604EQX)	
* 12	3-023-795-01	BRACKET (FAN) (604EQX)	
D903	8-719-023-35	DIODE FMG-32S	
D904	8-719-023-34	DIODE FMG-32R	

Ref. No.	Part No.	Description	Remark
F901	1-532-947-11	FUSE (BLADE TYPE) (AUTO FUSE) 30A	(404EQX)
F901	1-533-743-11	FUSE (BLADE TYPE) (AUTO FUSE) 40A	(604EQX)
Q109	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q110	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q209	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q210	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q309	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q310	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q409	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q410	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q907	8-729-030-72	FET MTAJ50N05HD (404EQX)	
Q907	8-729-030-73	FET MTAJ30N06HD (604EQX)	
Q908	8-729-030-72	FET MTAJ50N05HD (404EQX)	
Q908	8-729-030-73	FET MTAJ30N06HD (604EQX)	
Q909	8-729-030-73	FET MTAJ30N06HD (604EQX)	
Q910	8-729-030-73	FET MTAJ30N06HD (604EQX)	
Q911	8-729-209-15	TRANSISTOR 2SD2012	
Q912	8-729-141-83	TRANSISTOR 2SB1375	
TH802	1-809-664-51	THERMISTOR, POSITIVE	

4-2. CONTROL PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-032-785-01	PLATE, ORNAMENTAL (404EQX)	
51	3-032-785-11	PLATE, ORNAMENTAL (604EQX)	
52	3-035-767-01	KNOB (VR)	
53	3-035-768-01	KNOB (SW)	
* 54	3-035-904-01	BRACKET (CHASSIS)	
* 55	3-035-903-01	BRACKET (VR)	
* 56	1-672-786-11	EQ BOARD	
57	3-035-765-01	LENS (A)	
* 58	1-672-784-11	LED BOARD	
59	1-790-765-11	CABLE, PARALLEL (5P)	
60	3-035-766-01	LENS (B)	
* 61	1-672-783-11	IND BOARD	
62	1-790-764-11	CABLE, PARALLEL (4P)	

AMP

SECTION 5
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3317-649-A	AMP BOARD, COMPLETE (404EQX)			
*	A-3317-650-A	AMP BOARD, COMPLETE (604EQX)			
		**********			
		< CAPACITOR >			
C101	1-126-047-11	ELECT	4.7uF	20%	50V
C102	1-126-047-11	ELECT	4.7uF	20%	50V
C103	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C104	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C105	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C106	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C107	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C108	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C109	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C110	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C130	1-124-994-11	ELECT	100uF	20%	10V
C131	1-102-518-11	CERAMIC	33PF	5%	50V
C132	1-102-947-00	CERAMIC	10PF	5%	50V
C133	1-126-025-11	ELECT	330uF	20%	25V
C134	1-130-495-11	MYLAR	0.1uF	5%	50V
C135	1-130-491-00	MYLAR	0.047uF	5%	50V
C138	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C141	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C141	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C142	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C142	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C143	1-130-483-00	MYLAR	0.01uF	5%	50V
C201	1-126-047-11	ELECT	4.7uF	20%	50V
C202	1-126-047-11	ELECT	4.7uF	20%	50V
C203	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C204	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C205	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C206	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C208	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C209	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C210	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C230	1-124-994-11	ELECT	100uF	20%	10V
C231	1-102-518-11	CERAMIC	33PF	5%	50V
C232	1-102-947-00	CERAMIC	10PF	5%	50V
C234	1-130-495-11	MYLAR	0.1uF	5%	50V
C235	1-130-491-00	MYLAR	0.047uF	5%	50V
C236	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C238	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C241	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C241	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C242	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C242	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C243	1-130-483-00	MYLAR	0.01uF	5%	50V
C301	1-126-047-11	ELECT	4.7uF	20%	50V
C302	1-126-047-11	ELECT	4.7uF	20%	50V
C303	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C304	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C305	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C306	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C307	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C308	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C309	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C310	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C330	1-124-994-11	ELECT	100uF	20%	10V
C331	1-102-518-11	CERAMIC	33PF	5%	50V
C332	1-102-947-00	CERAMIC	10PF	5%	50V
C334	1-130-495-11	MYLAR	0.1uF	5%	50V
C335	1-130-491-00	MYLAR	0.047uF	5%	50V
C336	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C338	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C341	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C341	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C342	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C342	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C343	1-130-483-00	MYLAR	0.01uF	5%	50V
C401	1-126-047-11	ELECT	4.7uF	20%	50V
C402	1-126-047-11	ELECT	4.7uF	20%	50V
C403	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C404	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C405	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C406	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C407	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C408	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C409	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C410	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C430	1-124-994-11	ELECT	100uF	20%	10V
C431	1-102-518-11	CERAMIC	33PF	5%	50V
C432	1-102-947-00	CERAMIC	10PF	5%	50V
C434	1-130-495-11	MYLAR	0.1uF	5%	50V
C435	1-130-491-00	MYLAR	0.047uF	5%	50V
C436	1-163-081-00	CERAMIC CHIP	0.22uF		25V
C438	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C441	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C441	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C442	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (604EQX)
C442	1-164-162-11	CERAMIC CHIP	100PF	5%	100V (404EQX)
C443	1-130-483-00	MYLAR	0.01uF	5%	50V
C801	1-126-044-11	ELECT	1uF	20%	50V
C802	1-126-044-11	ELECT	1uF	20%	50V
C806	1-126-006-11	ELECT	22uF	20%	16V
C807	1-126-006-11	ELECT	22uF	20%	16V
C808	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C809	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C811	1-126-006-11	ELECT	22uF	20%	16V
C812	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C813	1-126-006-11	ELECT	22uF	20%	16V
C814	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C815	1-130-483-00	MYLAR	0.01uF	5%	50V
C817	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C818	1-126-006-11	ELECT	22uF	20%	16V
C901	1-136-899-11	MYLAR	0.47uF	5%	50V
C902	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C903	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C904	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C905	1-130-471-00	MYLAR	0.001uF	5%	50V
C906	1-126-006-11	ELECT	22uF	20%	16V
C907	1-124-994-11	ELECT	100uF	20%	10V
C908	1-126-023-11	ELECT	100uF	20%	16V
C909	1-130-495-11	MYLAR	0.1uF	5%	50V
C910	1-126-015-11	ELECT	3300uF	20%	16V (404EQX)
C910	1-126-768-11	ELECT	2200uF	20%	16V (604EQX)
C911	1-126-015-11	ELECT	3300uF	20%	16V (404EQX)
C911	1-126-768-11	ELECT	2200uF	20%	16V (604EQX)
C912	1-126-768-11	ELECT	2200uF	20%	16V (604EQX)
C913	1-130-495-11	MYLAR	0.1uF	5%	50V
C914	1-130-495-11	MYLAR	0.1uF	5%	50V
C915	1-104-613-21	ELECT	4700uF	20%	35V (404EQX)
C915	1-128-711-11	ELECT	5600uF	20%	35V (604EQX)
C916	1-104-613-21	ELECT	4700uF	20%	35V (404EQX)
C916	1-128-711-11	ELECT	5600uF	20%	35V (604EQX)
C917	1-126-052-11	ELECT	100uF	20%	35V
C918	1-126-052-11	ELECT	100uF	20%	35V
C919	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C920	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C921	1-126-023-11	ELECT	100uF	20%	16V
C922	1-126-023-11	ELECT	100uF	20%	16V
C923	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C924	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C927	1-126-023-11	ELECT	100uF	20%	16V
C928	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C929	1-124-994-11	ELECT	100uF	20%	10V
C930	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

< TERMINAL TABLE >

CN801	1-694-511-11	TABLE, TERMINAL (3P) (REMOTE/+12V/GND)
CN804	1-694-512-11	TABLE, TERMINAL (4P) (SPEAKER OUT (FRONT L/R))
CN805	1-694-512-11	TABLE, TERMINAL (4P) (SPEAKER OUT (REAR L/R))
CNJ801	1-537-479-11	TERMINAL (INPUT FRONT L/R, INPUT REAR L/R) (604EQX)

< CONNECTOR >

CN802	1-784-904-21	CONNECTOR 4P (INPUT FRONT (HIGH LEVEL INPUT))
CN803	1-784-904-31	CONNECTOR 4P (INPUT REAR (HIGH LEVEL INPUT))
CNJ807	1-793-098-11	CONNECTOR, FFC/FPC (ZIF) 4P
CNJ808	1-793-099-11	CONNECTOR, FFC/FPC (ZIF) 5P
CNP804	1-564-718-00	PIN, CONNECTOR (SMALL TYPE) 2P (604EQX)
CNP806	1-793-038-11	CONNECTOR, BOARD TO BOARD 10P
CNP807	1-793-038-11	CONNECTOR, BOARD TO BOARD 10P

< JACK >

CNJ801	1-779-078-41	JACK, PIN 4P (INPUT FRONT L/R, INPUT REAR L/R) (404EQX)

< DIODE >

D101	8-719-800-76	DIODE 1SS133T-91
D102	8-719-800-76	DIODE 1SS133T-91
D201	8-719-800-76	DIODE 1SS133T-91
D202	8-719-800-76	DIODE 1SS133T-91
D301	8-719-800-76	DIODE 1SS133T-91
D302	8-719-800-76	DIODE 1SS133T-91
D401	8-719-800-76	DIODE 1SS133T-91
D402	8-719-800-76	DIODE 1SS133T-91
D801	8-719-801-78	DIODE 1SS184
D802	8-719-801-78	DIODE 1SS184

AMP

Ref. No.	Part No.	Description	Remark
D803	8-719-801-78	DIODE 1SS184	
D804	8-719-025-34	DIODE 02CZ6.8-TE85L	
D805	8-719-801-78	DIODE 1SS184	
D806	8-719-820-05	DIODE 1SS181	
D807	8-719-158-49	DIODE UDZ-TE-17-12B (604EQX)	
D901	8-719-054-55	DIODE 1SS306(TE85L)	
D902	8-719-054-55	DIODE 1SS306(TE85L)	
D903	8-719-023-35	DIODE FMG-32S	
D904	8-719-023-34	DIODE FMG-32R	
D905	8-719-801-78	DIODE 1SS184	
D906	8-719-801-78	DIODE 1SS184	
D907	8-719-025-31	DIODE 02CZ5.6-TE85L	
D908	8-719-025-50	DIODE 02CZ16-TE85L	
D909	8-719-025-34	DIODE 02CZ6.8-TE85L	
D912	8-719-991-33	DIODE 1SS133T-77	
D913	8-719-025-49	DIODE 02CZ15-TE85L	
D914	8-719-025-49	DIODE 02CZ15-TE85L	
		< FUSE >	
F901	1-532-947-11	FUSE (BLADE TYPE) (AUTO FUSE) 30A	(404EQX)
F901	1-533-743-11	FUSE (BLADE TYPE) (AUTO FUSE) 40A	(604EQX)
		< IC >	
IC101	8-759-711-82	IC NJM4580E	
IC301	8-759-711-82	IC NJM4580E	
IC801	8-759-711-82	IC NJM4580E	
IC901	8-759-144-88	IC uPC494GS	
		< PHOTO COUPLER >	
IC902	8-719-156-72	PHOTO COUPLER PS2501-1-K	
		< JUMPER RESISTOR >	
JR1	1-216-295-00	METAL CHIP 0 5%	1/10W
JR2	1-216-295-00	METAL CHIP 0 5%	1/10W
JR3	1-216-295-00	METAL CHIP 0 5%	1/10W
JR4	1-216-295-00	METAL CHIP 0 5%	1/10W
JR6	1-216-295-00	METAL CHIP 0 5%	1/10W
JR7	1-216-296-00	METAL CHIP 0 5%	1/8W (604EQX)
JR8	1-216-296-00	METAL CHIP 0 5%	1/8W (604EQX)
		< COIL >	
L901	1-416-322-11	INDUCTOR 278uH	
L902	1-410-396-71	INDUCTOR 0.45uH	
L903	1-410-396-71	INDUCTOR 0.45uH	
L904	1-410-396-71	INDUCTOR 0.45uH	
L905	1-410-396-71	INDUCTOR 0.45uH	
L906	1-410-396-71	INDUCTOR 0.45uH	

Ref. No.	Part No.	Description	Remark
		< PILOT LAMP >	
PL801	1-518-540-00	LAMP, PILOT	
		< TRANSISTOR >	
Q101	8-729-903-10	TRANSISTOR FMW1	
Q102	8-729-026-57	TRANSISTOR FMS1A-T148	
Q103	8-729-140-82	TRANSISTOR 2SA988-FA	
Q104	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q105	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q106	8-729-119-78	TRANSISTOR 2SC1815-Y	
Q107	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q108	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q109	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q110	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q111	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q112	8-729-203-48	TRANSISTOR 2SC3327-A	
Q201	8-729-903-10	TRANSISTOR FMW1	
Q202	8-729-026-57	TRANSISTOR FMS1A-T148	
Q203	8-729-140-82	TRANSISTOR 2SA988-FA	
Q204	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q205	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q206	8-729-119-78	TRANSISTOR 2SC1815-Y	
Q207	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q208	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q209	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q210	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q211	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q212	8-729-203-48	TRANSISTOR 2SC3327-A	
Q301	8-729-903-10	TRANSISTOR FMW1	
Q302	8-729-026-57	TRANSISTOR FMS1A-T148	
Q303	8-729-140-82	TRANSISTOR 2SA988-FA	
Q304	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q305	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q306	8-729-119-78	TRANSISTOR 2SC1815-Y	
Q307	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q308	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q309	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q310	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q311	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q312	8-729-203-48	TRANSISTOR 2SC3327-A	
Q401	8-729-903-10	TRANSISTOR FMW1	
Q402	8-729-026-57	TRANSISTOR FMS1A-T148	
Q403	8-729-140-82	TRANSISTOR 2SA988-FA	
Q404	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q405	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q406	8-729-119-78	TRANSISTOR 2SC1815-Y	
Q407	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q408	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q409	8-729-024-80	TRANSISTOR 2SC5100-Y	
Q410	8-729-024-77	TRANSISTOR 2SA1908-Y	
Q411	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q412	8-729-203-48	TRANSISTOR 2SC3327-A	

Ref. No.	Part No.	Description			Remark
Q808	8-729-216-21	TRANSISTOR 2SA1162-Y			
Q809	8-729-216-21	TRANSISTOR 2SA1162-Y			
Q810	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q811	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q812	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q813	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q814	8-729-216-21	TRANSISTOR 2SA1162-Y			
Q815	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q816	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q817	8-729-216-21	TRANSISTOR 2SA1162-Y			
Q818	8-729-032-94	TRANSISTOR 2SD1859TV2Q (604EQX)			
Q819	8-729-216-21	TRANSISTOR 2SA1162-Y (604EQX)			
Q901	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q902	8-729-041-38	TRANSISTOR 2SB1241TV2Q			
Q903	8-729-216-21	TRANSISTOR 2SA1162-Y			
Q904	8-729-207-82	TRANSISTOR 2SC3421-Y			
Q905	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q906	8-729-230-49	TRANSISTOR 2SC2712-Y			
Q907	8-729-030-72	FET MTAJ50N05HD (404EQX)			
Q907	8-729-030-73	FET MTAJ30N06HD (604EQX)			
Q908	8-729-030-72	FET MTAJ50N05HD (404EQX)			
Q908	8-729-030-73	FET MTAJ30N06HD (604EQX)			
Q909	8-729-030-73	FET MTAJ30N06HD (604EQX)			
Q910	8-729-030-73	FET MTAJ30N06HD (604EQX)			
Q911	8-729-209-15	TRANSISTOR 2SD2012			
Q912	8-729-141-83	TRANSISTOR 2SB1375			
		< RESISTOR >			
R101	1-208-518-61	RES,CHIP	22K	2%	1/10W
R102	1-208-518-61	RES,CHIP	22K	2%	1/10W
R103	1-208-526-61	RES,CHIP	47K	2%	1/10W
R104	1-208-526-61	RES,CHIP	47K	2%	1/10W
R105	1-208-522-61	RES,CHIP	33K	2%	1/10W
R106	1-208-522-61	RES,CHIP	33K	2%	1/10W
R107	1-216-471-11	METAL OXIDE	27	5%	3W F
R134	1-208-510-61	RES,CHIP	10K	2%	1/8W
R135	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R136	1-249-420-11	CARBON	1.8K	5%	1/4W
R137	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R138	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R139	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R140	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R141	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R141	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R142	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R142	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R143	1-216-182-00	RES,CHIP	220	2%	1/8W
R144	1-216-182-00	RES,CHIP	220	2%	1/8W
R145	1-208-534-61	RES,CHIP	100K	2%	1/10W
R146	1-208-534-61	RES,CHIP	100K	2%	1/10W
R147	1-208-435-61	RES,CHIP	820	2%	1/10W
R148	1-208-423-61	RES,CHIP	270	2%	1/10W
R149	1-208-812-11	RES,CHIP	18K	2%	1/10W
R150	1-249-424-11	CARBON	3.9K	5%	1/4W (404EQX)
R150	1-249-425-11	CARBON	4.7K	5%	1/4W (604EQX)
R151	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R152	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R153	1-216-182-00	RES,CHIP	220	2%	1/8W
R154	1-205-991-11	METAL PLATE	0.1X2	10%	5W
R155	1-208-784-11	RES,CHIP	1.2K	2%	1/10W
R156	1-208-441-61	RES,CHIP	1.5K	2%	1/10W (604EQX)
R156	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R157	1-208-462-61	RES,CHIP	10K	2%	1/10W
R158	1-208-550-61	RES,CHIP	470K	2%	1/10W
R159	1-215-857-11	METAL OXIDE	10	5%	1W F
R160	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R201	1-208-518-61	RES,CHIP	22K	2%	1/10W
R202	1-208-518-61	RES,CHIP	22K	2%	1/10W
R203	1-208-526-61	RES,CHIP	47K	2%	1/10W
R204	1-208-526-61	RES,CHIP	47K	2%	1/10W
R205	1-208-522-61	RES,CHIP	33K	2%	1/10W
R206	1-208-522-61	RES,CHIP	33K	2%	1/10W
R207	1-216-471-11	METAL OXIDE	27	5%	3W F
R234	1-208-510-61	RES,CHIP	10K	2%	1/8W
R235	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R236	1-249-420-11	CARBON	1.8K	5%	1/4W
R237	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R238	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R239	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R240	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R241	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R241	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R242	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R242	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R243	1-216-182-00	RES,CHIP	220	2%	1/8W
R244	1-216-182-00	RES,CHIP	220	2%	1/8W
R245	1-208-534-61	RES,CHIP	100K	2%	1/10W
R246	1-208-534-61	RES,CHIP	100K	2%	1/10W
R247	1-208-435-61	RES,CHIP	820	2%	1/10W
R248	1-208-423-61	RES,CHIP	270	2%	1/10W
R249	1-208-812-11	RES,CHIP	18K	2%	1/10W
R250	1-249-424-11	CARBON	3.9K	5%	1/4W (404EQX)
R250	1-249-425-11	CARBON	4.7K	5%	1/4W (604EQX)
R251	1-208-381-61	RES,CHIP	4.7	2%	1/8W

AMP

Ref. No.	Part No.	Description			Remark
R252	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R253	1-216-182-00	RES,CHIP	220	2%	1/8W
R254	1-205-991-11	METAL PLATE	0.1X2	10%	5W
R255	1-208-784-11	RES,CHIP	1.2K	2%	1/10W
R256	1-208-441-61	RES,CHIP	1.5K	2%	1/10W (604EQX)
R256	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R257	1-208-462-61	RES,CHIP	10K	2%	1/10W
R258	1-208-550-61	RES,CHIP	470K	2%	1/10W
R259	1-215-857-11	METAL OXIDE	10	5%	1W F
R260	1-208-486-61	RES,CHIP	1K	2%	1/8W
R301	1-208-518-61	RES,CHIP	22K	2%	1/10W
R302	1-208-518-61	RES,CHIP	22K	2%	1/10W
R303	1-208-526-61	RES,CHIP	47K	2%	1/10W
R304	1-208-526-61	RES,CHIP	47K	2%	1/10W
R305	1-208-522-61	RES,CHIP	33K	2%	1/10W
R306	1-208-522-61	RES,CHIP	33K	2%	1/10W
R307	1-216-471-11	METAL OXIDE	27	5%	3W F
R334	1-208-510-61	RES,CHIP	10K	2%	1/8W
R335	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R336	1-249-420-11	CARBON	1.8K	5%	1/4W
R337	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R338	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R339	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R340	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R341	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R341	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R342	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R342	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R343	1-216-182-00	RES,CHIP	220	2%	1/8W
R344	1-216-182-00	RES,CHIP	220	2%	1/8W
R345	1-208-534-61	RES,CHIP	100K	2%	1/10W
R346	1-208-534-61	RES,CHIP	100K	2%	1/10W
R347	1-208-435-61	RES,CHIP	820	2%	1/10W
R348	1-208-423-61	RES,CHIP	270	2%	1/10W
R349	1-208-812-11	RES,CHIP	18K	2%	1/10W
R350	1-249-424-11	CARBON	3.9K	5%	1/4W (404EQX)
R350	1-249-425-11	CARBON	4.7K	5%	1/4W (604EQX)
R351	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R352	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R353	1-216-182-00	RES,CHIP	220	2%	1/8W
R354	1-205-991-11	METAL PLATE	0.1X2	10%	5W
R355	1-208-784-11	RES,CHIP	1.2K	2%	1/10W
R356	1-208-441-61	RES,CHIP	1.5K	2%	1/10W (604EQX)
R356	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R357	1-208-462-61	RES,CHIP	10K	2%	1/10W
R358	1-208-550-61	RES,CHIP	470K	2%	1/10W
R359	1-215-857-11	METAL OXIDE	10	5%	1W F
R360	1-208-486-61	RES,CHIP	1K	2%	1/8W
R401	1-208-518-61	RES,CHIP	22K	2%	1/10W
R402	1-208-518-61	RES,CHIP	22K	2%	1/10W
R403	1-208-526-61	RES,CHIP	47K	2%	1/10W
R404	1-208-526-61	RES,CHIP	47K	2%	1/10W
R405	1-208-522-61	RES,CHIP	33K	2%	1/10W
R406	1-208-522-61	RES,CHIP	33K	2%	1/10W
R407	1-216-471-11	METAL OXIDE	27	5%	3W F
R434	1-208-510-61	RES,CHIP	10K	2%	1/8W
R435	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R436	1-249-420-11	CARBON	1.8K	5%	1/4W
R437	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R438	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R439	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R440	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R441	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R441	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R442	1-208-561-11	RES,CHIP	27K	2%	1/8W (404EQX)
R442	1-216-234-00	RES,CHIP	33K	2%	1/8W (604EQX)
R443	1-216-182-00	RES,CHIP	220	2%	1/8W
R444	1-216-182-00	RES,CHIP	220	2%	1/8W
R445	1-208-534-61	RES,CHIP	100K	2%	1/10W
R446	1-208-534-61	RES,CHIP	100K	2%	1/10W
R447	1-208-435-61	RES,CHIP	820	2%	1/10W
R448	1-208-423-61	RES,CHIP	270	2%	1/10W
R449	1-208-812-11	RES,CHIP	18K	2%	1/10W
R450	1-249-424-11	CARBON	3.9K	5%	1/4W (404EQX)
R450	1-249-425-11	CARBON	4.7K	5%	1/4W (604EQX)
R451	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R452	1-208-381-61	RES,CHIP	4.7	2%	1/8W
R453	1-216-182-00	RES,CHIP	220	2%	1/8W
R454	1-205-991-11	METAL PLATE	0.1X2	10%	5W
R455	1-208-784-11	RES,CHIP	1.2K	2%	1/10W
R456	1-208-441-61	RES,CHIP	1.5K	2%	1/10W (604EQX)
R456	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R457	1-208-462-61	RES,CHIP	10K	2%	1/10W
R458	1-208-550-61	RES,CHIP	470K	2%	1/10W
R459	1-215-857-11	METAL OXIDE	10	5%	1W F
R460	1-208-486-61	RES,CHIP	1K	2%	1/8W
R801	1-208-518-61	RES,CHIP	22K	2%	1/10W (604EQX)
R801	1-208-812-11	RES,CHIP	18K	2%	1/10W (404EQX)
R802	1-208-518-61	RES,CHIP	22K	2%	1/10W (604EQX)

Ref. No.	Part No.	Description			Remark
R802	1-208-812-11	RES,CHIP	18K	2%	1/10W (404EQX)
R803	1-208-518-61	RES,CHIP	22K	2%	1/10W (604EQX)
R803	1-208-812-11	RES,CHIP	18K	2%	1/10W (404EQX)
R804	1-208-518-61	RES,CHIP	22K	2%	1/10W (604EQX)
R804	1-208-812-11	RES,CHIP	18K	2%	1/10W (404EQX)
R805	1-208-800-11	RES,CHIP	5.6K	2%	1/10W
R806	1-208-800-11	RES,CHIP	5.6K	2%	1/10W
R807	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R807	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W (604EQX)
R808	1-208-791-11	RES,CHIP	2.4K	2%	1/10W (404EQX)
R808	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W (604EQX)
R824	1-208-558-61	RES,CHIP	1M	2%	1/10W
R831	1-208-462-61	RES,CHIP	10K	2%	1/10W
R832	1-208-462-61	RES,CHIP	10K	2%	1/10W
R833	1-208-462-61	RES,CHIP	10K	2%	1/10W
R834	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R835	1-208-526-61	RES,CHIP	47K	2%	1/10W
R836	1-208-462-61	RES,CHIP	10K	2%	1/10W
R837	1-208-462-61	RES,CHIP	10K	2%	1/10W
R838	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R839	1-208-462-61	RES,CHIP	10K	2%	1/10W
R840	1-208-462-61	RES,CHIP	10K	2%	1/10W
R841	1-208-550-61	RES,CHIP	470K	2%	1/10W
R842	1-218-764-11	RES,CHIP	330K	2%	1/10W
R843	1-208-423-61	RES,CHIP	270	2%	1/10W (404EQX)
R843	1-208-772-11	RES,CHIP	390	2%	1/10W (604EQX)
R844	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R845	1-208-583-61	RES,CHIP	220K	2%	1/8W
R846	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R847	1-208-510-61	RES,CHIP	10K	2%	1/8W
R848	1-208-437-61	RES,CHIP	1K	2%	1/10W
R849	1-216-698-11	METAL CHIP	91K	0.5%	1/10W
R850	1-208-522-61	RES,CHIP	33K	2%	1/10W
R851	1-208-462-61	RES,CHIP	10K	2%	1/10W
R852	1-208-462-61	RES,CHIP	10K	2%	1/10W
R853	1-208-462-61	RES,CHIP	10K	2%	1/10W
R854	1-208-462-61	RES,CHIP	10K	2%	1/10W
R855	1-208-558-61	RES,CHIP	1M	2%	1/10W
R856	1-208-494-61	RES,CHIP	2.2K	2%	1/8W
R857	1-208-462-61	RES,CHIP	10K	2%	1/10W
R858	1-208-558-61	RES,CHIP	1M	2%	1/10W
R859	1-208-441-61	RES,CHIP	1.5K	2%	1/10W (604EQX)
R860	1-208-437-61	RES,CHIP	1K	2%	1/10W (604EQX)
R861	1-208-423-61	RES,CHIP	270	2%	1/10W (604EQX)
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R903	1-208-474-61	RES,CHIP	330	2%	1/8W
R904	1-216-202-00	RES,CHIP	1.5K	2%	1/8W
R905	1-216-202-00	RES,CHIP	1.5K	2%	1/8W
R906	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R907	1-208-462-61	RES,CHIP	10K	2%	1/10W
R908	1-208-462-61	RES,CHIP	10K	2%	1/10W
R909	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R910	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R911	1-208-812-11	RES,CHIP	18K	2%	1/10W
R912	1-208-581-61	RES,CHIP	180K	2%	1/8W
R913	1-208-478-11	RES,CHIP	470	2%	1/8W
R914	1-208-478-11	RES,CHIP	470	2%	1/8W
R915	1-208-478-11	RES,CHIP	470	2%	1/8W
R916	1-208-478-11	RES,CHIP	470	2%	1/8W
R917	1-208-405-61	RES,CHIP	47	2%	1/8W
R918	1-208-405-61	RES,CHIP	47	2%	1/8W
R919	1-208-437-61	RES,CHIP	1K	2%	1/10W
R920	1-208-437-61	RES,CHIP	1K	2%	1/10W
R921	1-208-405-61	RES,CHIP	47	2%	1/8W (604EQX)
R921	1-216-150-00	RES,CHIP	10	2%	1/8W (404EQX)
R922	1-208-405-61	RES,CHIP	47	2%	1/8W (604EQX)
R922	1-216-150-00	RES,CHIP	10	2%	1/8W (404EQX)
R923	1-208-405-61	RES,CHIP	47	2%	1/8W (604EQX)
R924	1-208-405-61	RES,CHIP	47	2%	1/8W (604EQX)
R925	1-216-216-00	RES,CHIP	5.6K	2%	1/8W
R926	1-216-216-00	RES,CHIP	5.6K	2%	1/8W
R927	1-216-216-00	RES,CHIP	5.6K	2%	1/8W
R928	1-216-216-00	RES,CHIP	5.6K	2%	1/8W
R935	1-208-437-61	RES,CHIP	1K	2%	1/10W

< TRANSFORMER >

T901	1-433-852-11	TRANSFORMER, DC-DC CONVERTER (404EQX)
T901	1-433-853-11	TRANSFORMER, DC-DC CONVERTER (604EQX)

< THERMISTOR >

TH801	1-808-877-11	THERMISTOR
TH802	1-809-664-51	THERMISTOR, POSITIVE
TH803	1-808-877-11	THERMISTOR (604EQX)

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EQ

Ref. No.	Part No.	Description			Remark
*	1-672-786-11	EQ BOARD *********			
		< CAPACITOR >			
C111	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C112	1-130-497-00	MYLAR	0.15uF	5%	50V
C113	1-130-497-00	MYLAR	0.15uF	5%	50V
C114	1-126-022-11	ELECT	47uF	20%	10V
C115	1-126-022-11	ELECT	47uF	20%	10V
C116	1-126-022-11	ELECT	47uF	20%	10V
C117	1-130-496-00	MYLAR	0.12uF	5%	50V
C118	1-126-046-11	ELECT	3.3uF	20%	50V
C119	1-130-487-00	MYLAR	0.022uF	5%	50V
C120	1-126-044-11	ELECT	1uF	20%	50V
C121	1-136-293-11	MYLAR	0.0082uF	5%	50V
C122	1-130-499-00	MYLAR	0.22uF	5%	50V
C123	1-130-475-00	MYLAR	0.0022uF	5%	50V
C124	1-130-491-00	MYLAR	0.047uF	5%	50V
C125	1-130-467-00	MYLAR	470PF	5%	50V
C126	1-130-485-00	MYLAR	0.015uF	5%	50V
C127	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C128	1-126-022-11	ELECT	47uF	20%	10V
C129	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C137	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C144	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C151	1-126-022-11	ELECT	47uF	20%	10V
C152	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C153	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C211	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C212	1-130-497-00	MYLAR	0.15uF	5%	50V
C213	1-130-497-00	MYLAR	0.15uF	5%	50V
C214	1-126-022-11	ELECT	47uF	20%	10V
C215	1-126-022-11	ELECT	47uF	20%	10V
C216	1-126-022-11	ELECT	47uF	20%	10V
C217	1-130-496-00	MYLAR	0.12uF	5%	50V
C218	1-126-046-11	ELECT	3.3uF	20%	50V
C219	1-130-487-00	MYLAR	0.022uF	5%	50V
C220	1-126-044-11	ELECT	1uF	20%	50V
C221	1-136-293-11	MYLAR	0.0082uF	5%	50V
C222	1-130-499-00	MYLAR	0.22uF	5%	50V
C223	1-130-475-00	MYLAR	0.0022uF	5%	50V
C224	1-130-491-00	MYLAR	0.047uF	5%	50V
C225	1-130-467-00	MYLAR	470PF	5%	50V
C226	1-130-485-00	MYLAR	0.015uF	5%	50V
C227	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C228	1-126-022-11	ELECT	47uF	20%	10V
C229	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C237	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C244	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C251	1-126-022-11	ELECT	47uF	20%	10V
C252	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C253	1-165-319-11	CERAMIC CHIP	0.1uF		50V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CNJ806	1-793-041-11	CONNECTOR, BOARD TO BOARD 10P			
		< IC >			
IC102	8-759-711-82	IC NJM4580E			
IC103	8-759-711-82	IC NJM4580E			
IC104	8-759-711-82	IC NJM4580E			
IC105	8-759-711-82	IC NJM4580E			
IC106	8-759-711-82	IC NJM4580E			
IC107	8-759-711-82	IC NJM4580E			
IC108	8-759-711-82	IC NJM4580E			
IC109	8-759-711-82	IC NJM4580E			
IC110	8-759-711-82	IC NJM4580E			
IC203	8-759-711-82	IC NJM4580E			
		< JUMPER RESISTOR >			
J1	1-216-295-00	METAL CHIP	0	5%	1/10W
J2	1-216-295-00	METAL CHIP	0	5%	1/10W
J3	1-216-295-00	METAL CHIP	0	5%	1/10W
J5	1-216-296-00	METAL CHIP	0	5%	1/8W
J6	1-216-296-00	METAL CHIP	0	5%	1/8W
J7	1-216-296-00	METAL CHIP	0	5%	1/8W
		< RESISTOR >			
R108	1-208-462-61	RES,CHIP	10K	2%	1/10W
R109	1-208-518-61	RES,CHIP	22K	2%	1/10W
R110	1-208-462-61	RES,CHIP	10K	2%	1/10W
R111	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R112	1-208-462-61	RES,CHIP	10K	2%	1/10W
R113	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R114	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R115	1-208-534-61	RES,CHIP	100K	2%	1/10W
R116	1-208-534-61	RES,CHIP	100K	2%	1/10W
R117	1-208-534-61	RES,CHIP	100K	2%	1/10W
R118	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R119	1-208-526-61	RES,CHIP	47K	2%	1/10W
R120	1-208-776-11	RES,CHIP	560	2%	1/10W
R121	1-208-826-11	RES,CHIP	68K	2%	1/10W
R122	1-208-774-11	RES,CHIP	470	2%	1/10W
R123	1-208-526-61	RES,CHIP	47K	2%	1/10W
R124	1-208-774-11	RES,CHIP	470	2%	1/10W
R125	1-208-526-61	RES,CHIP	47K	2%	1/10W
R126	1-208-774-11	RES,CHIP	470	2%	1/10W
R127	1-208-526-61	RES,CHIP	47K	2%	1/10W
R128	1-208-774-11	RES,CHIP	470	2%	1/10W
R129	1-208-526-61	RES,CHIP	47K	2%	1/10W
R130	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R131	1-208-526-61	RES,CHIP	47K	2%	1/10W
R132	1-208-510-61	RES,CHIP	10K	2%	1/8W
R133	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R163	1-208-462-61	RES,CHIP	10K	2%	1/10W
R208	1-208-462-61	RES,CHIP	10K	2%	1/10W

Ref. No.	Part No.	Description			Remark
R209	1-208-518-61	RES,CHIP	22K	2%	1/10W
R210	1-208-462-61	RES,CHIP	10K	2%	1/10W
R211	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R212	1-208-462-61	RES,CHIP	10K	2%	1/10W
R213	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R214	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R215	1-208-534-61	RES,CHIP	100K	2%	1/10W
R216	1-208-534-61	RES,CHIP	100K	2%	1/10W
R217	1-208-534-61	RES,CHIP	100K	2%	1/10W
R218	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R219	1-208-526-61	RES,CHIP	47K	2%	1/10W
R220	1-208-776-11	RES,CHIP	560	2%	1/10W
R221	1-208-826-11	RES,CHIP	68K	2%	1/10W
R222	1-208-774-11	RES,CHIP	470	2%	1/10W
R223	1-208-526-61	RES,CHIP	47K	2%	1/10W
R224	1-208-774-11	RES,CHIP	470	2%	1/10W
R225	1-208-526-61	RES,CHIP	47K	2%	1/10W
R226	1-208-774-11	RES,CHIP	470	2%	1/10W
R227	1-208-526-61	RES,CHIP	47K	2%	1/10W
R228	1-208-774-11	RES,CHIP	470	2%	1/10W
R229	1-208-526-61	RES,CHIP	47K	2%	1/10W
R230	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R231	1-208-526-61	RES,CHIP	47K	2%	1/10W
R232	1-208-510-61	RES,CHIP	10K	2%	1/8W
R233	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R263	1-208-462-61	RES,CHIP	10K	2%	1/10W
		< SWITCH >			
S101	1-572-185-11	SWITCH, SLIDE (FILTER)			
S102	1-692-721-11	SWITCH, SLIDE (DIRECT)			
		< VARIABLE RESISTOR >			
VR101	1-225-647-11	RES, VAR	20KX4 (FILTER)		
VR102	1-225-835-11	RES, VAR	20K (50Hz)		
VR103	1-225-835-11	RES, VAR	20K (200Hz)		
VR104	1-225-835-11	RES, VAR	20K (800Hz)		
VR105	1-225-835-11	RES, VAR	20K (3.2kHz)		
VR106	1-225-835-11	RES, VAR	20K (12.8kHz)		
VR107	1-225-648-11	RES, VAR	5KX2 (LEVEL)		

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*	1-672-783-11	IND BOARD			
		**********			
		< CAPACITOR >			
C803	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C804	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C805	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C816	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< IC >			
IC802	8-759-970-62	IC BA6820F			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
LD801	8-719-074-70	LED SEC1603C	
LD802	8-719-074-70	LED SEC1603C	
LD803	8-719-074-70	LED SEC1603C	
LD804	8-719-074-70	LED SEC1603C	
LD805	8-719-074-70	LED SEC1603C	
LD806	8-719-074-70	LED SEC1603C	
LD807	8-719-074-70	LED SEC1603C	
LD808	8-719-074-70	LED SEC1603C	
LD809	8-719-074-70	LED SEC1603C	
LD810	8-719-074-70	LED SEC1603C	
LD811	8-719-074-70	LED SEC1603C	
LD812	8-719-074-70	LED SEC1603C	
LD813	8-719-074-70	LED SEC1603C	
LD814	8-719-074-70	LED SEC1603C	
LD815	8-719-074-70	LED SEC1603C	
LD816	8-719-074-70	LED SEC1603C	
LD817	8-719-074-70	LED SEC1603C	
LD818	8-719-074-70	LED SEC1603C	
LD819	8-719-074-70	LED SEC1603C	
LD820	8-719-074-70	LED SEC1603C	
LD821	8-719-074-70	LED SEC1603C	
LD822	8-719-074-70	LED SEC1603C	
LD823	8-719-074-70	LED SEC1603C	
LD824	8-719-074-70	LED SEC1603C	
		< TRANSISTOR >	
Q801	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q802	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q803	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q804	8-729-216-21	TRANSISTOR 2SA1162-Y	

		< RESISTOR >			
R809	1-208-437-61	RES,CHIP	1K	2%	1/10W
R810	1-208-437-61	RES,CHIP	1K	2%	1/10W
R811	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R812	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R813	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R814	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R815	1-208-425-61	RES,CHIP	330	2%	1/10W
R816	1-208-425-61	RES,CHIP	330	2%	1/10W
R817	1-208-425-61	RES,CHIP	330	2%	1/10W
R818	1-208-425-61	RES,CHIP	330	2%	1/10W
R819	1-208-425-61	RES,CHIP	330	2%	1/10W
R820	1-208-425-61	RES,CHIP	330	2%	1/10W
R821	1-208-526-61	RES,CHIP	47K	2%	1/10W
R822	1-208-526-61	RES,CHIP	47K	2%	1/10W
R823	1-216-689-11	METAL CHIP	39K	0.5%	1/10W

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LED

Ref. No.	Part No.	Description			Remark
*	1-672-784-11	LED BOARD			
		**********			
		< CONNECTOR >			
CNJ803	1-750-159-21	CONNECTOR, FPC 5P			
		< DIODE >			
D880	8-719-801-78	DIODE 1SS184			
D881	8-719-801-78	DIODE 1SS184			
D882	8-719-801-78	DIODE 1SS184			
LD825	8-719-070-01	LED SEC2764C (OVER CURRENT)			
LD826	8-719-070-01	LED SEC2764C (OFFSET)			
LD827	8-719-070-01	LED SEC2764C (THERMAL)			
		< TRANSISTOR >			
Q805	8-729-900-53	TRANSISTOR DTC114EK			
Q806	8-729-900-53	TRANSISTOR DTC114EK			
Q807	8-729-900-53	TRANSISTOR DTC114EK			
		< RESISTOR >			
R825	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
R826	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
R827	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
R828	1-216-210-00	RES,CHIP	3.3K	2% 1/8W	
R829	1-216-210-00	RES,CHIP	3.3K	2% 1/8W	
R830	1-216-210-00	RES,CHIP	3.3K	2% 1/8W	
R880	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
R881	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
R882	1-208-494-61	RES,CHIP	2.2K	2% 1/8W	
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		MISCELLANEOUS			
		**********			
11	1-763-107-11	MOTOR, FAN (604EQX)			
59	1-790-765-11	CABLE, PARALLEL (5P)			
62	1-790-764-11	CABLE, PARALLEL (4P)			
F901	1-532-947-11	FUSE (BLADE TYPE) (AUTO FUSE) 30A			(404EQX)
F901	1-533-743-11	FUSE (BLADE TYPE) (AUTO FUSE) 40A			(604EQX)
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Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-013-264-01	COVER, 3P TERMINAL TABLE	
	3-367-410-01	SCREW (DIA. 5X15), TAPPING	
	3-866-147-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	(404EQX)
	3-866-147-21	MANUAL, INSTRUCTION (GERMAN,ITALIAN)	(404EQX:AEP,UK,E)
	3-866-147-31	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE)	(404EQX:AEP,UK,E)
	3-866-147-41	MANUAL, INSTRUCTION (DUTCH,SWEDISH)	(404EQX:AEP,UK,E)
	3-866-147-51	MANUAL, INSTRUCTION (RUSSIAN)	(404EQX:AEP,UK,E)
	3-866-149-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	(604EQX)
	3-866-149-21	MANUAL, INSTRUCTION (GERMAN,ITALIAN)	(604EQX:AEP,UK,E)
	3-866-149-31	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE)	(604EQX:AEP,UK,E)
	3-866-149-41	MANUAL, INSTRUCTION (DUTCH,SWEDISH)	(604EQX:AEP,UK,E)
	3-866-149-51	MANUAL, INSTRUCTION (RUSSIAN)	(604EQX:AEP,UK,E)
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		**********	
		HARDWARE LIST	
		**********	
#1	7-685-546-19	SCREW +BTP 3X8 TYPE2 N-S	
#2	7-685-543-21	SCREW +BTP 3X4 TYPE2	
#3	7-685-544-11	SCREW +BTP 3X5 TYPE2 N-S	
#4	7-685-548-19	SCREW +BTP 3X12 TYPE2 N-S	
#5	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
#6	7-682-949-01	SCREW +PSW 3X10	
#7	7-685-783-09	SCREW +PTT 2X6 (S)	
#8	7-685-146-01	SCREW +P 3X8 TYPE1	
#9	7-682-648-09	SCREW +PS 3X8	
#10	7-685-790-09	SCREW +PTT 2.6X4 (S)	
#11	7-621-775-20	+B 2.6X5	
#12	7-685-103-19	SCREW +P 2X5 TYPE2 SLIT	
#13	7-685-797-09	SCREW +PTT 2.6X16 (S) (604EQX)	

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